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ABSTRACT

The United States seems to be launching another round of efforts to change how teachers are paid. The path to teacher compensation change is not easy, but there are new ideas about how to pay educated workers, such as teachers, on bases other than years of experience, education units, and degrees. This publication examines state and local efforts to change teacher compensation and proposes strategies that are appropriate for education. It examines past and present practices, such as "merit pay" and "career ladder" approaches, then proposes new ways to compensate teachers, including skill-based pay, pay for knowledge, and group-based awards linked to school results. Recent findings are presented followed by a discussion on how these new approaches work to boost teacher morale and professionalism and improve schools. The eight chapters cover: (1) how teachers are compensated; (2) what has been learned from attempts at change; (3) elements of pay and compensation; (4) relationship between pay and motivation; (5) rewarding individual teachers for developing needed competencies; (6) making part of compensation contingent on teacher activities; (7) school bonuses for improved student performance; and (8) implementing better compensation systems for school improvement. Principles for implementing change in teacher compensation are outlined in the appendix. (Contains 203 references.) (ND)

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Paying Teachers for What They Know and Do

New and Smarter Compensation Strategies to Improve Schools

Allan Odden
Carolyn Kelley

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New and Smarter Compensation Strategies to Improve Schools

Allan Odden
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Preface

The United States seems to be launching another round of efforts to change how teachers are paid. Except for changes made at the beginning of the century, when the single salary schedule was created, nearly all change efforts have failed to produce lasting effects. Most previous efforts at changing how teachers are paid focused on individual merit or incentive pay, pay strategies that work in only a few private-sector organizations and do not work in education or other organizations in which the most productive work is characterized by collegial and collaborative interaction.

Despite this record of flawed proposals, it is possible to make the current round of teacher compensation innovation a success and a contribution to education, rather than another set of failed efforts. A major purpose of this book is to steer state and local efforts at teacher compensation change into strategies that are appropriate for education, that will contribute to the national goal of teaching all students to high standards, and that will contribute to higher pay for teachers. The path to teacher compensation change is not easy, but there are new ideas about how to pay educated workers, such as teachers, on bases other than years of experience, education units, and degrees. In this book, we describe these strategies, discuss how they fit within several broader elements of change in the education system, give examples of changes being implemented across the country, and suggest ways states and districts can proceed to make progress on this important agenda.

Although teacher compensation technically includes both salary and benefits, in this book we use the terms *teacher pay, teacher salary,* and

teacher compensation interchangeably. Odden and Conley (1992) have addressed the broader issue of teacher compensation, with suggestions, with which we generally agree, for changes in teacher benefit packages. But the major difficulty during the 20th century has been designing workable and helpful changes in the teacher salary structure, which is the subject of this book.

We also take the position that teaching should be viewed as a full-time job and that teacher salaries can appropriately be compared with the salaries in other occupations that more formally cover a 12-month period. Although teachers are in the classroom for fewer than 8 hours a day and teach only 180 working days per year, fully engaged professional teachers put in many more hours than that formal schedule suggests, easily working a full 8-hour day, if not longer, and working during considerable periods of the summer as well. The job of a teacher consists not only of teaching students (and correcting their work) but also of continually developing new skills and competencies, improving the curriculum, and increasingly helping manage their schools. Anecdotal evidence from the states, districts, and schools participating in the National Alliance for Restructuring, a project of the National Center on Education and the Economy, implies that high-quality teaching as envisioned by standards-based school reform cannot be accomplished within a 6-hour day and a 9-month school year and that the best teachers—those whom the system needs to retain and who could be paid more—work substantially beyond these minimums.

We also raise the issue of teacher compensation in the context of efforts to improve schools but recognize that many others put teacher compensation on the agenda for different reasons. Changes in teacher pay sometimes are proposed as a set of anti-teacher and anti-union initiatives. Teacher compensation can be placed on the policy agenda without this negative aura. Another rationale for changing teacher pay systems is to encourage the public to provide more money for schools and, thus, teacher salaries as well. Teacher compensation can also be placed on the agenda without this overly parochial intent.

We believe that the driving public concerns about schools are safety, academic standards, and student achievement. The public wants schools to improve—to produce higher levels of student learning. Thus, our proposals for changing teacher compensation are best understood within a broad set of strategies that will improve the quality and results of U.S. public schools. We are convinced that if schools get better, they will also gain stronger public support and be accompanied by increased funding.

Thus, we address teacher compensation within the broad context of improving schools; the teacher compensation changes suggested in this book can serve not only as interlinking strategies to improve U.S. schools but also as a means to improve the salaries of the teacher leaders who must take the primary local leadership roles for accomplishing current education reform goals.

The first few chapters in the book reflect this education reform orientation. Chapter 1 has two sections. In the first section, we present an overview of changes in the levels of teacher pay over several decades. We conclude, somewhat contrary to public perception, that average teacher salaries have not increased much during the past 35 years and that the salary potential for a person entering teaching is very limited. In the second section, we show how teacher compensation change fits into two major initiatives within education—the standards-based reform movement and efforts to strengthen teaching as a profession. We also present a summary of the new compensation strategies in private-sector and nonprofit organizations—competency-based pay, contingency-based pay, and group-based performance awards—and suggest that they have potential for application in education as well.

In Chapter 2, we make several major points. First, we show that teacher compensation has changed over the years, although most of the change occurred in the 19th and early 20th centuries, before nearly all who are now in education entered teaching or some other position in the education system. Second, we argue that teacher compensation changed when the broader economy changed and the structure of worker compensation in general changed. Third, we argue that the economy today is again changing, from an industrial to an information, high-performance economy and that many organizations outside education have already designed and implemented different pay structures that might work in education as well. Fourth, we show how the structure of compensation should be linked to the nature of the school organization—for example, its goals, human resources policies, and management—and show how the changing nature of schools and the unchanging nature of teacher compensation suggest that teacher compensation change should be high on the education agenda.

In Chapter 3, we review the major elements of pay that should be considered for any system—beginning pay, membership (seniority) pay, performance pay for either individuals or teams/groups, and contingency pay. We describe different versions of each of these pay elements and give possible education examples for each.

In Chapter 4, we review the linkages between pay and motivation for workers in all types of organizations, as well as for education. We argue that people, including teachers, are motivated by a variety of intrinsic and extrinsic factors, including pay. A rich research literature in non-education organizations shows, moreover, that adding an extrinsic element (e.g., a performance bonus) to an intrinsic motivator (e.g., accomplishing goals) does not undermine the intrinsic motivator, but rather enhances overall motivation. Because the research literature in education on well-designed extrinsic motivators is limited, we could not draw conclusions about how such elements would work in schools. But, the combined set of findings on what motivates workers generally and what motivates teachers specifically suggests that several new structures for compensation, including competency-based pay and group-based performance awards, have high potential for contributing to stronger motivation of teachers.

In Chapters 5, 6, and 7, we discuss three promising new elements that could be included in a revised teacher compensation structure: competency-based pay, contingency-based pay, and collective school-based performance awards. Competency pay would provide salary increments for teachers who develop new knowledge and skills that are needed by schools, such as increasingly sophisticated curricular and instructional skills, professional and curricular development expertise, or competencies to engage wisely in school-based management. In a full-fledged competency-based pay plan, competencies could replace experience and education units as the basis for salary increases above beginning pay.

In Chapter 5, we discuss four models of competency-based pay, beginning with modest additions to the current single salary schedule and ending with a completely new competency-based pay plan. Each of the plans would provide a permanent salary increase for certification from the National Board for Professional Teaching Standards (discussed in Chapter 1). In Chapter 5, we also discuss various strategies for developing the infrastructure for administering a competency-based pay plan—descriptions of teaching practice to professional standards and an assessment system to gauge each teacher's practice to those standards.

We use the term *competency-based pay* in this chapter, rather than *skill-* or *knowledge-based pay*, because it is the emerging term for this type of pay for educated, professional, or knowledge workers. *Skill-based pay* had been the more common term but now applies more to manufacturing and lesser-skilled jobs.

In Chapter 6, we describe *contingency-based pay,* a pay strategy that makes some portion of pay contingent on engaging in some core activity for the school. This idea is taken from the General Motors Saturn Plant in Tennessee, where a portion of everyone's pay is "held back," contingent on everyone engaging in a certain number of hours of annual professional development. This pay element economically and symbolically highlights the importance of training and development as a core strategy in the Saturn organization. In Chapter 6, we discuss why and how a similar hold-back for engaging in professional development might also be appropriate in education, particularly because knowledge, skill, and capacity development is viewed by nearly everyone as a cornerstone for accomplishing the standards-based education reform objective of teaching all students to high standards (Corcoran, 1995; Goertz, Floden, & O'Day, 1995).

In Chapter 7, we discuss, analytically and at length, group or school-based performance awards. We distinguish the idea of a collective award from the individual incentive and merit pay programs of the past, which have not worked in education. By contrast, a group performance award would provide a bonus to all workers in a school—all professional staff and all classified staff as well. We identify what major elements must be addressed in designing a school-based performance award, including financing. Because these pay elements are relatively new to education, we could not recommend design choices for many issues, such as how to make performance awards fair for schools that enroll students with different characteristics. We strongly argue that districts and states must make the best decisions they can and then rigorously research implementation and impact to determine which strategies work best in which circumstances. We do, however, recommend that such awards have student achievement as the primary factor in the performance measure, that performance awards should be provided only for value-added (improving) performance, and that the awards should be provided to everyone in the school, including dollars for the student body fund, if possible. Finally, we describe several promising but not perfect performance awards that have been implemented already during the 1990s.

We conclude the book with a chapter on implementation issues, which are key to effective teacher compensation change. In this chapter, we make several key points. First, creation of teacher compensation change should involve all major parties in the development and change process; involvement generates trust, and trust is the key ingredient in making new

approaches to pay work. Second, three major activities will help prepare districts and schools for designing and implementing pay changes: (a) setting the foundation for the need for change by gathering local input that would help in designing any new compensation element, (b) learning from other organizations and schools about why and how they changed pay structures, and (c) piloting new ideas when possible. The tone of this chapter is that process is as important as technical issues for an activity as complicated as changing how individuals—teachers—are paid.

Finally, we comment on the financing of teacher compensation change. Many would argue that teacher compensation can only change if more money is added to the education system. That would be nice, but the future scenario for education funding is not optimistic (Gold, 1995). In other organizations, compensation change has been implemented in contexts of rising, flat, and declining revenues. But, because of major restructuring and improved productivity, salaries have generally increased in the organizations that have changed compensation to the type of structures discussed in this book.

Because we believe that schools also must be dramatically restructured to produce high performance, we believe that teacher compensation can also be changed and increased whether education revenues are rising, flat, or declining. Certainly, rising revenues would help the process. But, a large percentage of current education resources used for a wide variety of nonteaching resources could be better used for teachers (Odden & Clune, 1995a; Odden, Monk, Nakib, & Picus, 1995). Thus, we know that substantial resources are already in the education system and must be reallocated to the core function of teaching and instruction; that is one major task of school restructuring and will produce more money for teacher pay.

We do make specific suggestions for how to finance school-based, value-added performance awards. These programs need separate and protected funding sources because they work in the medium-to-long run only if they remain an enduring feature of the education system. These programs should not be started if policy leaders are not prepared to maintain their funding.

We are optimistic about the ideas we put forth in this book. We know that compensation change is never easy. We know that the history of change in education compensation is dismal and is basically a history of failed efforts. We also know that poorly designed and implemented compensation change can have a detrimental impact on system productivity and employee morale. But, done appropriately, compensation change potentially can create a positive, motivating, and rewarding work

environment and can contribute to enhanced education system productivity. This book is written, in part, to encourage state, district, and union policymakers to adopt changes in compensation that can enhance rather than deplete education productivity.

We also believe that the imperative of education improvement today is as important as it has ever been and that change in teacher compensation can be part of the strategies that, combined, will help make reform work. We hope the ideas put forth will become a feature of the teacher compensation landscape across the country over the next decades.

Acknowledgments

Many ideas in this book emerged from a series of conversations and seminars we conducted with teacher union leaders from around the country and in seminars with leaders of key national education groups, including school boards, administrators, chief state school officers, and state legislators. We are indebted to these individuals and have learned much from the energetic discussions we have had. We alone take responsibility for the recommendations we make in the book and know that not everyone will agree with what we write. Nevertheless, the book is richer because of the time, energy, and ideas that dozens of teachers, teacher union leaders, administrators, school board members, and others have shared with us.

We also thank our research assistant Jean Protsik, a recent graduate of the University of Wisconsin's La Follette Institute of Public Affairs, for helping us with research, drafting, citations, and overall general support.

The path-breaking research on new approaches to compensation more generally was conducted in the Center for Effective Organizations at the University of Southern California, the university where Allan Odden worked in the School of Education before joining the University of Wisconsin-Madison in 1993. We are indebted to the work there of Edward Lawler, III; Susan and Allan Mohrman; and Gerald Ledford. The concepts pioneered by these people give us hope that the current round of teacher compensation innovation will move into new and fertile fields and stay away from the sterile lands of individual merit pay.

For the past several years, Professor Sharon Conley, at the University of California, Santa Barbara, has worked with us on teacher compensation issues. We are indebted to her for the contributions she has made to our

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thinking about how teacher compensation can be restructured. She also carefully reviewed the final manuscript and suggested numerous improvements.

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In short, we have had much professional support for this exciting and complex work. The book has benefited from all this assistance. Any shortcomings are certainly ours.

Allan Odden
Carolyn Kelley

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He has consulted for the U.S. Congress, the U.S. Secretary of Education, governors, state legislators, chief state school officers, national and local unions, superintendents in local school districts, the National Alliance for Business, the Business Roundtable, and the New American Schools Development Corporation.

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To my mother and father and first teachers,
Mabel E. Odden and Robert N. Odden

To my mother, Nancy Kelley, who has worked tirelessly
throughout her teaching career to create an exciting,
stimulating learning environment for all her students.
And to my son, Nathan, in whose small hands
I entrust the future.

How Teachers Are Compensated

1

Teacher compensation is a high-interest issue. Some think teachers are paid too little; others think teachers are paid too much. During the past 50 years, state and local policymakers have enacted several well-publicized efforts to link teacher pay to performance—either their own performance or the performance of their students. These efforts have been largely unsuccessful and short-lived. As a result, teacher compensation structures today look much as they did decades ago. Most districts pay teachers according to a single salary schedule that provides salary increases for objective differences among teachers: education units, university degrees, and years of teaching experience.

In this book, we use *teacher compensation* and *teacher pay* interchangeably. Technically, teacher compensation includes salary and fringe benefits, such as health and life insurance, retirement, and sick leave. Odden and Conley (1992) discuss these nonsalary issues, but in this book we address just the salary issue, using *salary, pay,* and *compensation* as synonyms.

Because teacher compensation comprises the largest portion of an education budget, questions about teachers' compensation are paramount. If teachers are paid below market, salaries need to be increased, else the quality of people entering or remaining in teaching likely will fall (Manski, 1987; Murnane, Singer, Willett, Kemple, & Olsen, 1991; Rosen & Flyer, 1994). If better methods exist for paying teachers, they should be considered and adopted, especially if they will contribute to improved schools and higher-, more effectively paid teachers. But finding and

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implementing more effective ways to pay teachers is a stiff challenge, and as discussed in Chapter 2, the recent history of this search in the United States is quite dismal.

For several reasons, however, the education system today can successfully meet the challenge of designing better ways to pay teachers. Here, we identify new compensation structures that could be used with other organizational strategies to improve school performance, increase student achievement, enhance teacher capacity and effectiveness, raise teacher salaries, and perhaps even improve teacher morale. We introduce these strategies in an attempt to provide guidance to policymakers and practitioners in how to design and successfully undertake teacher compensation reform.

In addition, we describe how the level of teacher pay has changed since 1960, provide an overview of current teacher compensation structures, and discuss how the context surrounding teaching today is conducive to revisiting the issue of teacher compensation.

Status of Teacher Compensation

In general, today's teachers are paid according to a single salary schedule that provides salary increments according to a teacher's years of experience and number of college/university units and degrees. This type of schedule, first implemented in several big-city districts in the late 1920s and early 1930s, has not changed much during the 20th century. For the past several decades, moreover, teacher salaries have not changed dramatically relative to those of other occupations.

Teacher Salary Levels

Most teachers are public employees. Their salaries are set by local school boards, sometimes with state-guaranteed minimums. This is an unlikely context for producing very high salaries. Although some districts pay teachers an annual salary that can exceed $70,000, the national average in 1994-95 was $36,933, a relatively low level, given the average education and experience of the teaching force.

Teacher salaries have changed significantly over time. During some periods, teacher salaries have risen or fallen with the salaries of other workers, and during other periods—particularly in the 1980s—the policy goal was to boost teacher salaries ahead of those of other occupations to

make teaching more attractive. As the following discussion shows, however, relative teacher salaries today are about where they were 25 years ago, and the bulk of teacher salary increases occurred during the 1960s.

Table 1.1 displays average teacher salaries over the 35-year period from 1960 to 1995. Although nominal teacher salaries rose more than sevenfold during this time (from $4,950 in 1960 to $36,993 in 1995), the change is much smaller when the numbers are adjusted for inflation by using the Consumer Price Index. As the Constant 1994-95 Dollar column in Table 1.1 shows, average teacher salaries rose from just $25,569 in 1960 to $36,933 in 1995, a 35-year increase of 44.4%.

But the numbers also show other factors buried in this 35-year change. The largest change in average salaries occurred during the 1960s, the period when the baby-boom generation entered public education, swelling school enrollments. Salaries increased from $25,569 to $34,346 between 1960 and 1970, a 34.4% increase in just a decade. During the next 25 years, from 1970 and 1995, however, average inflation-adjusted teacher salaries rose only 7.5%, to just $36,993.

During the 25 years from 1970 to 1995, though, teacher salaries went on a roller-coaster ride. First, as did many salaries during the inflationary period of the 1970s, inflation-adjusted teacher salaries dropped from $34,346 to $30,941, a loss of 10%. Then, during the 1980s, when policymakers decided that teacher salaries should increase, salaries rose 20%, not only gaining back the loss of the 1970s but also gaining an additional 8.2% over the previous 1970 high. But from 1990 to 1995, average teacher salaries remained flat (paralleling the overall level of inflation-adjusted per-pupil education funding, which also was flat).

In short, taking 1960 as a base, teacher salaries in 1995 were almost 50% higher, but the bulk of teacher pay increases occurred during the 1960s. Further, since 1970, teacher salaries increased less than an average of 0.3% per year, and after 1990, inflation-adjusted teacher salaries did not increase but rather decreased a small amount. At least for the last quarter century, this is not a story of fiscal success. Indeed, because the average years of teacher experience also increased from 1970 to 1995, it could be that, when adjusted for years of experience, average teacher salaries today are no higher than they were 25 years ago.

Of course, these national figures vary dramatically by state and region (National Center for Education Statistics [NCES], 1995a, Table 77). The highest average teacher salary in 1994 was $51,196 in Connecticut, where salaries increased by 39% between 1970 and 1994. The lowest average teacher salary in 1994 was $25,874 in Mississippi, where salaries

TABLE 1.1 Estimated Average Annual Teacher Salaries, 1960 to 1995

School Year	*Actual Dollars*	*Constant 1994-95 Dollars*
1959-60	$ 4,950	$ 25,569
1969-70	8,626	34,346
1979-80	15,970	30,941
1989-90	31,367	37,156
1990-91	33,085	37,159
1991-92	34,063	37,070
1992-93	35,029	36,966
1993-94	35,819	36,846
1994-95	36,993	36,993

SOURCE: National Center for Education Statistics (1995b, Table 76).
NOTE: Consumer Price Index used as inflation adjustment.

increased by just 12% over this same 25-year period. In three states—Alaska, Colorado, and Hawaii—and the District of Columbia, salaries actually increased during the 1970s, in contrast with the national pattern of decline. In Louisiana, however, teacher salaries remained essentially unchanged during this time. In short, the national averages play out very differently, depending on the region, state, and local district in which a teacher works.

Average teacher salaries and changes over time are not the only salary figures of importance. Table 1.2 shows estimated average beginning teacher salaries, as well as average beginning salaries for several categories of college graduates, again from 1960 to 1995. These comparisons are important because one major factor in the ability of education to recruit able persons into teaching is the competitiveness of the beginning salary. Research shows that the higher the beginning salary, the abler the persons recruited into teaching (Ferris & Winkler, 1986).

Several aspects of the figures in Table 1.2 stand out in comparing beginning salaries of teachers with those of college graduates entering different professions. First, teacher salaries are just below those of all other liberal arts graduates, the primary competitive pool for teachers. A modest goal for any state or district is to set beginning teacher salaries at least at the level of liberal arts graduates. Second, this might not be a sufficiently high beginning salary. The data show that although progress has been made, beginning teacher salaries are still below those of people entering

TABLE 1.2 Beginning Teacher Salaries Compared With Salaries of Other College Graduates

	Beginning Salary			
	1972	*1980*	*1990*	*1995*
Teaching	$ 6,970	$10,657	$20,635	$24,463
Engineering	10,608	20,136	32,304	36,701
Accounting	10,356	15,720	27,408	28,398
Business administration	8,568	14,100	26,496	28,434
Liberal arts	8,328	13,296	26,244	28,715
Economics/Finance	9,240	14,472	26,712	29,484
Computer science	—	17,712	29,100	33,663
Ratio of Other Occupations' Salaries to Teaching Salaries				
Engineering	1.52	1.89	1.57	1.50
Accounting	1.49	1.48	1.33	1.16
Business administration	1.23	1.32	1.28	1.16
Liberal arts	1.19	1.25	1.27	1.17
Economics/Finance	1.33	1.36	1.29	1.21
Computer science	—	1.66	1.41	1.38

SOURCE: Based on data from Nelson & Schneider (1995).

accounting and business administration. Third, if teaching is to attract able people into mathematics, science, and technology instruction, beginning salaries are even less competitive. Beginning engineers and computer scientists make substantially more than teachers, as do persons entering economics and finance. Finally, although the gap between beginning teacher salaries and those of many other professions has narrowed in the 1990s, the flat level of education funding threatens this progress. Unless district and state policymakers keep their eye on the competitive market for teachers and keep beginning salaries competitive, especially as many teachers retire and student enrollment grows and new teachers are needed, education is likely to be disadvantaged in recruiting its fair share of bright, able individuals into teaching.

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These points also pertain to average salary levels. Teacher salary levels and their changes over time are important in themselves but also in relation to those of other occupations. Even if teacher salaries were stagnant, teaching would still have a relative advantage if the salaries of other workers were falling. Tables 1.3 and 1.4 provide comparative data on teacher salaries, again for the last 30 or so years. Table 1.3 shows the ratio between average teacher salaries and average salaries for all people in the workforce. The numbers reflect the overall trends in teacher salaries. First, teacher salaries gained relative to the salaries of all workers between 1950 and 1970, growing from just 3% more to 23% more. But half of this gain was lost during the 1970s. By 1990, though, teacher salaries had risen not only back to their high of 1970 but even a bit higher, to 28% above the average worker's salary. But 1990 seemed to be the high-water mark. The gain dropped from 28% to 26% by 1993, and likely could continue to drop.

Teacher salaries should be higher than those of most other workers because nearly all teachers are college graduates and a large percentage have masters' or even higher education degrees. Teachers are among the highest-educated workers in the U.S. economy, and most teachers engage in ongoing professional training each year to enhance their professional expertise. Given their level of education and training, they should have a large earning advantage, compared with all other workers, but that advantage was only 26% in 1993.

As Table 1.4 reveals, however, teachers generally are paid less than many other workers with similar levels of education and training. Since 1962, the average teacher salary has made significant gains as compared with those of accountants and assistant professors but is still substantially below those of attorneys, engineers, and computer systems analysts. Attorneys made about twice as much as teachers in 1962 and retained that advantage in 1994. Although the earnings advantage of engineers dropped somewhat between 1962 and 1994, the average engineer in 1994 made 57% more than the average teacher. Perhaps the most striking element of Table 1.4 is that the average salary of a teacher is now close to that of an assistant professor at a public university even though the latter requires a doctoral degree. The fact is that educators—teachers or professors—tend to earn less than many other professionals, particularly those in mathematics, science, and technology.

In sum, it would be fair to say that teacher salaries today are modest. They have changed over time, but not much since 1970. They are much lower than those of many other professionals with similar levels of

TABLE 1.3 Ratio of Average Teacher (Instructional) Salary to the Salary of All Full-Time Employees in the Economy

School Year	*Ratio*
1950	1.03
1960	1.12
1970	1.23
1980	1.11
1990	1.28
1993	1.26
1995	—

SOURCE: National Center on Education Statistics (1995b, Table 80).

education and training, although they are higher than the averages of all workers in the economy. The salary changes that have occurred, though, can be put into a different fiscal context by comparing them with the more than 200% increase in inflation-adjusted per-pupil funding that also occurred between 1960 and 1995. Clearly, the bulk of new education dollars did not increase the salaries of individual teachers; as other research has shown, it was used to hire more teachers to provide more services for students, such as special and compensatory education (Odden, Monk, et al., 1995).

The Single Salary Schedule

Most teachers across the United States are paid according to a single salary schedule. This does not mean that all teachers earn the same salary. Individual teacher salaries vary according to the attributes of individual teachers. Teachers with more years of experience have higher salaries. Teachers with more education units have higher salaries. Teachers with master's degrees have higher salaries. The structure even pays more for additional jobs: Coaches earn a salary supplement, and advisors of clubs and other co-curricular activities often earn a salary increment. But critical to the success of the single salary schedule is the fact that the basis for paying teachers different amounts—years of experience, education units, and different jobs—are objective, measurable, and not subject to administrative whim.

TABLE 1.4 Estimated Average Salaries of Teachers and Selected Other College Graduates

	1962	*1970*	*1980*	*1990*	*1994*
Teachers	$ 5,512	$8,635	$16,100	$31,347	$35,764
Accountant III	7,416	10,686	21,299	35,489	39,815
Attorney III	11,844	16,884	33,034	59,087	71,328
Computer systems analyst	NA	NA	NA	47,958	55,998
Engineer	10,248	14,695	28,486	49,365	56,191
Assistant professor, public university (1964)	7,700	10,800	17,800	32,730	37,220
Ratio of Other Occupations to Teachers					
Accountant III	1.34	1.24	1.32	1.13	1.11
Attorney III	2.15	1.96	2.05	1.88	1.99
Computer systems analyst	—	—	—	1.53	1.57
Engineer	1.86	1.70	1.77	1.57	1.57
Assistant professor, public university (1966)	1.28	1.25	1.11	1.04	1.04

SOURCE: Based on data in Nelson & Schneider (1995).

Figure 1.1 displays the major features of a salary schedule for an average school district in 1994-95. The data show that the beginning salary was $24,820. Nationally, that was about 90% of the beginning salary for all college graduates entering the workforce in that year with a liberal arts degree.

The maximum salary was $51,430, about 107% above the beginning salary. If one assumes that this type of salary structure would remain, which it has for nearly 75 years, the most a teacher in this district could expect financially during his or her career would be to double his or her beginning salary. But this salary doubling would occur only after working 30 years and investing in substantial graduate training.

For the first 14 years, the teacher would automatically receive a salary increment of $945 each year without earning any additional credits. These increases typically are called *seniority* or *years of experience* increases. But after 14 years, automatic annual salary increments would stop and be replaced by *longevity* increments that take more than 1 year to earn. Indeed, the longevity increases for each of Steps 15 through 18 require an additional 4 years of teaching. In short, to earn the Step 18 salary level

Step	*Bachelor's*	*BA + 15*	*BA + 30*	*Master's*	*MA + 15*	*MA + 30*	*Doctor's*
1	24,820	25,695	26,570	27,445	28,320	29,195	30,070
2	25,765	26,705	27,640	28,575	29,515	30,450	31,390
3	26,710	27,715	28,710	29,705	30,710	31,705	32,710
4	27,655	28,725	29,780	30,835	31,905	32,960	34,030
5	28,600	29,735	30,850	31,965	33,100	34,215	35,350
6	29,545	30,745	31,920	33,095	34,295	35,470	36,670
7	30,490	31,755	32,990	34,225	35,490	36,725	37,990
8	31,435	32,765	34,060	35,355	36,685	37,980	39,310
9	32,380	33,775	35,130	36,485	37,880	39,235	40,630
10	33,325	34,785	36,200	37,615	39,075	40,490	41,950
11	34,270	35,795	37,270	38,745	40,270	41,745	43,270
12	35,215	36,805	38,340	39,875	41,465	43,000	44,590
13	36,160	37,815	39,410	41,005	42,660	44,255	45,910
14	37,105	38,825	40,480	42,135	43,855	45,510	47,230
15*	38,005	39,750	41,430	43,110	44,855	46,535	48,280
16*	38,905	40,675	42,380	44,085	45,855	47,560	49,330
17*	39,805	41,600	43,330	45,060	46,855	48,585	50,380
18*	40,705	42,525	44,280	46,035	47,855	49,610	51,430

Figure 1.1. Typical Teacher Single Salary Schedule, 1994-95
NOTE: *Steps 15, 16, 17, and 18 are longevity steps payable on completion of 4 years of service in Steps 14, 15, 16, and 17, respectively.

requires 30 years of teaching experience, about the full career of most teachers.

Not indicated on the schedule is the placement of an experienced teacher who is new to the district. Although the procedure is changing, common practice has been to limit a teacher to a maximum of 4 to 6 years of experience; this would mean that teachers who did not stay in one district for their entire careers—the most common behavior—might never reach the highest salary step (Step 18 for this district) regardless of their professional expertise.

Figure 1.1 also shows that earning advanced credits and degrees also produces salary increases. Both the dollar amount and the percentage increase for these education credits rise with the years of experience. So, for example, a teacher with a master's degree at Step 1 would earn a 10.6% or $2,625 salary increase; at Step 6, a 12% or $3,550 increase; and at Step

18, a 13.5% or $5,030 increase. These increases would be added to the teacher's base salary and thus would be earned for every year after the master's degree was earned.

For an average teacher who earned a master's degree by the 14th year of teaching, his or her salary would have risen about 70% above the starting salary. If the teacher did not earn any more degrees or take any more education credits, he or she would then earn just 10% more (the longevity increases) over the next 16 years, which would put that teacher's salary 85% above his or her beginning salary.

A doctoral degree pushes these maximum earning numbers a bit higher. A doctorate within the first 14 years of teaching would produce a salary of $47,230, or 90% above the beginning salary, and that again could rise by just another $4,200 over the next 14 years of experience to a maximum of $51,430. These data do not include extra salary increments for additional jobs, such as coaching a sport or advising a team or other extracurricular activity.

Certainly, salary schedules around the United States vary from the one shown in Figure 1.1, with both lower and higher salaries at different points in the steps-and-lanes matrix, as well as greater or fewer steps and lanes. Nevertheless, the data in Figure 1.1 are a good overall indicator of how teachers are paid: Teachers tend to start with a salary close to that of college graduates with liberal arts degrees and below that of all college graduates; and they can, at most, double their salaries only with substantial graduate training and after a long time period—often their entire teaching career. By and large, they "top out" on annual increments within the first 15 years of teaching (in their mid-30s if they begin teaching in their early 20s). And their extra pay for more years of experience is limited. In short, the typical teacher has modest earning power.

Finally, larger salaries are available to teachers but only for those leaving teaching and entering administrative jobs—assistant principal, principal, central office supervisor, or numerous other out-of-classroom jobs. Except for recent salary increases for earning certification from the National Board for Professional Teaching Practice (discussed below), teachers with a greater array of professional expertise do not earn more than those with fewer skills and competencies, and only in rare circumstances are teachers (who provide the most crucial direct service to students—instruction) able to earn more than individuals who do not work in the classroom.

There are better ways to pay teachers, and better ways to let teachers—the linchpins in the education system for reaching the goal of teach-

ing students to high standards—increase their maximum pay beyond levels now possible in the average school district while also allowing them to remain in the classroom, teaching children for the bulk of the working day.

Winds of Change

Understanding how to design and implement new, effective, and workable teacher compensation structures has an additional urgency because the taxpaying public, the business community, and policymakers still pressure the education system to produce results and to link pay—even school finance structures, more broadly—to performance. As shown in Chapter 2, however, previous innovations in teacher compensation, such as merit pay for individual teachers or administrators or career ladder programs, also seemed promising, but the promises were not fulfilled (Freiberg & Knight, 1991; Heneman & Young, 1991; Murnane & Cohen, 1986; Schlechty, 1989).

Although this dismal history has led many educators to believe that any changes in teacher compensation, particularly performance awards, are not suitable for education (Bacharach, Lipsky, & Shedd, 1984; Cohen, 1996; Darling-Hammond, 1996; Johnson, 1986; Kohn, 1993; Lipsky & Bacharach, 1983), a new round of teacher compensation changes already has begun around the country. School-based performance awards have been created in nearly a dozen states, including Kentucky, in which most of the money is used for teacher salary bonuses, and South Carolina, in which the money is used for school improvement initiatives. Colorado enacted legislation in 1995 that encourages districts to implement teacher compensation innovations, and several dozen programs, largely focused on group performance awards, were tried in 1995-96. California, Minnesota, and Wisconsin debated similar bills. At the local level, programs in Dallas, Texas, and Charlotte-Mecklenburg, North Carolina, provide a bonus to all staff—professional and classified—in schools that meet performance targets, as well as funds to the school for instructional improvement.

Other states and districts have added elements of competency-based pay. Numerous states and districts now provide salary bonuses to teachers who earn certificates from the National Board for Professional Teaching Standards (NBPTS). This is the first major competency-based pay element to enter teacher pay systems. But many other districts are developing

local aspects of competency-based pay. Douglas County, Colorado, has the most elaborate system, but an additional variation has been created by Rochester, New York. In each instance, the district identified specific, required competencies; set specific standards of performance; and provided salary increments only when individual teachers met the performance standard for the identified skill. The Rochester design helped teachers move toward NBPTS certification. In short, numerous and rapidly emerging innovations in teacher compensation provide a rich natural laboratory for research and analysis.

As stated above, we find appealing the argument that changes in teacher compensation plans that improve their alignment with reform goals can contribute to better education for students. We also know that educators have little awareness of new compensation structures. It is possible that plans developed in the future will not draw on the workable new concepts, but rather will constitute just another round of merit pay and thus not motivate teachers or improve the quality of education provided to students. Given the vast resources devoted to compensation, the continued pressures from stakeholders outside education and the skepticism of many within education, getting the word out on compensation innovations that show promise—competency-based pay, contingency pay, and group performance awards—is a critical need and a primary purpose of this book.

New Concepts of Compensation

The above new ideas for how to pay teachers differently are paralleled by new compensation strategies that are used quite successfully in organizations, particularly high-performance organizations in the private and nonprofit sectors, to pay individuals, including professional knowledge workers. Many organizations in the broader economy are undergoing a dramatic change in both the structure of their workplace and the way they pay employees, including professionals (Lawler, 1990; Schuster & Zingheim, 1992; Zingheim & Schuster, 1995a). One force driving these broader changes is the need to improve productivity; this need is also the challenge for education if the lofty goals of education reform are to be attained (Odden & Clune, 1995a, 1995b).

Although they vary, the pressures to improve productivity in nonschool settings have several commonalities. One is an intense focus on quality and results with the requirement that quality improve in quantum,

not just marginal, amounts. To produce quantum improvements, organizations restructure and reorganize. In this process, they usually decentralize their management systems and flatten their organizational structures. They create multifunctional work teams, give them power and authority to accomplish organizational and team goals, and hold them accountable for results. Considerable ongoing investment in training team members must accompany this new strategy for it to work. Team members are trained in technical areas, in new functional areas for which teams are responsible, and in the business skills needed to engage in self-management (Hammer & Champy, 1993; Katzenbach & Smith, 1993; Lawler, 1986, 1992).

These changes represent the "new logic" for organizing higher-performance systems in the 1990s and the 21st century. Moreover, ample research has shown that this way of organizing work is particularly well suited to education and applies quite well to schools (Darling-Hammond, 1996; Galbraith & Lawler, 1993; Mohrman, Lawler, & Mohrman, 1992; Mohrman, Wohlstetter, & Associates, 1994; Odden & Odden, 1995).

Many organizations following this new logic have also designed new forms of compensation so that their pay practices enhance the core knowledge and competencies needed in their new structure. Such core competencies include team-based leadership and management skills; new technical, analytic skills to support continuous improvement; and skills for working across traditional functional lines (Lawler, 1990; Zingheim & Schuster, 1995a).

As a result, concepts such as skill-based pay, competency-based pay, pay for knowledge, pay for professional expertise, collective rewards for adding value to performance, and gainsharing have become the core of new compensation strategies. Under these strategies, individuals are not paid on the basis of seniority or for doing a particular job. Rather, they are paid on the basis of the knowledge, skills, and competencies they need to perform their many new job tasks. Further, a portion of each team member's pay can depend on the results of the team's effort as measured by team and organizational performance. Group performance awards, team bonuses, and gainsharing plans reflect these compensation innovations. In these organizations, job-based pay, experience-based pay, and individual merit and incentive pay are being replaced by competency-based pay, contingency pay, and team-based performance awards. In short, compensation has been changed to align organizational incentives and rewards with the strategic needs of the workplace (Heneman &

Von Hippel, 1995; Ledford, 1995a, 1995b; Ledford, Lawler, & Mohrman, 1995).

Shifting pay increments from years of experience and loosely related education units to more direct measures of professional skills and competencies, adding a mechanism that undergirds the need for ongoing training and assessment of instructional strategies, and perhaps adding group-based performance bonuses are compensation changes that could reconnect how teachers are paid with the evolving strategic needs of new school organizations, calls for teacher professionalism, and the core requirements of standards-based education reform. Providing salary increments for teachers who are certified by the NBPTS as accomplished expert teachers, a policy increasingly adopted by states and districts, is a direct competency-based pay element and represents specific movement on teacher compensation reform (Conley & Odden, 1995; Darling-Hammond, 1996; Kelley & Odden, 1995; Mohrman, Mohrman, & Odden, 1996).

The Changing Context of Teaching

These evolving new notions about how to pay knowledge workers, including teachers, are compatible with and even reinforce the broader reform context surrounding teaching and education. First, serious efforts are being made to transform teaching into a much stronger profession. These efforts include a new understanding of what constitutes good teaching, actions by teachers to describe and assess what beginning and advanced teachers know and can do, and creation of incentives for teachers to learn these new teaching practices. Second, the standards-based education reform movement, in which teachers play leading roles, is identifying curriculum content standards and student performance standards that require a greater level of teacher professional competence to implement. The standards-based reform movement includes notions of school restructuring and site-based management, both of which require that teachers play new and key roles in organizing and managing their work environment; these roles also require additional teacher competencies, as well as incentives for teachers to develop them.

Thus, the context surrounding teaching could be reinforced by change in teacher compensation. If this round of change draws from the new ideas used successfully in other organizations to pay knowledge workers who work best collegially, it has the potential to be more successful than the failed efforts of the individual merit and incentive pay schemes of the

past 50 years (Heneman & Young, 1991; Murnane & Cohen, 1986) and career ladders of the more recent past (Bellon, Bellon, Blank, Brian, & Kershaw, 1989; Freiberg & Knight, 1991; Schlechty, 1989; Southern Regional Education Board, 1994).

The Push to Professionalize Teaching

The proper context for understanding the need to change teacher compensation is within the larger issue of how to enhance the profession as a whole. Several initiatives across the United States focus on enhancing the professional condition of teaching. Since 1986, when the Carnegie Forum on Education and the Economy released a report on the need to transform teaching into a full-fledged profession, the United States has experienced numerous initiatives to do just that. In 1995, the National Commission on Teaching and America's Future was created and will issue a report close to the 10-year anniversary of the Carnegie report. The new report will make numerous recommendations to improve instruction and the professional nature of teaching that likely will include new forms of compensation.

Three components of the efforts to professionalize teaching are particularly relevant to a discussion of teacher compensation: (a) a new view of teaching as an intellectually complex, multifaceted activity critical to having all students achieve to high standards; (b) creation of detailed, written descriptions of teaching practice and development of standards that can be used to describe and assess practice relative to external criteria; and (c) development of assessments for both beginning and advanced teachers that indicate the level of teaching practice relative to external standards.

New Understandings of Good Teaching

Based primarily on advances from cognitive psychology, the rapidly growing realization is that all but the student with the severest disability can achieve to high academic standards. Producing this "higher-level learning," though, requires a different type of pedagogy and a new understanding of what constitutes good teaching and learning (Bransford, Goldman, & Vye, 1991; Bruer, 1993; Knapp, Shields, & Turnbull, 1995; Lehrer, 1993; Odden & Odden, 1995, chap. 3; Resnick & Klopfer, 1989).

Good teaching today requires a deep understanding of content—that is, knowledge of the conceptual underpinnings of a subject area, the

principles that tie the concepts together, and the ability to use both the principles and the concepts to engage in analysis both to advance understanding of the subject area and to solve real problems. Good teaching also requires a similarly deep understanding of how students learn the content, including (a) the developmental stages children move through as they construct deeper subject matter understanding, (b) the types of predictable errors they make, and (c) the incorrect theories they construct. Finally, good teaching requires knowing and learning how to use an ever-increasing array of pedagogical practices that lead students through a set of experiences that helps them know and understand the subject matter.

Effective teaching occurs when students learn to high standards and consists of applying the knowledge of content, student learning, and pedagogy to the tasks of teaching—planning, instruction, assessment, diagnosis, and classroom management—in the context of a particular subject area and with a particular group of students (Darling-Hammond, Wise, & Klein, 1995). Although good teaching requires a wealth of knowledge, studies also show that good teaching is quite contextualized; a major strength of expert teachers is the degree to which their classroom strategies are conditioned on their personal, practical knowledge of their students—both the specific cognitive abilities and the various learning styles. Good teachers use this personal, practical knowledge as a lens through which they understand classroom events and thus as a guide for developing classroom instructional experiences that will help each student individually, as well as the class as a whole, construct long-term and deep understandings of the subject matter he or she studies.

In short, good teaching—teaching to high professional standards—is informed by understanding of content, knowledge about learning, and knowledge about content-specific pedagogy; it is grounded in the realities of a particular classroom with a set of real children. Further, good teaching is codependent on the effect any set of instructional activities has on the student; good teachers take in information about how students respond and learn (or do not learn) and modify, adapt, and plan future instructional activities with those responses in mind. In short, as Shulman (1986) concludes, good teachers engage continuously in pedagogical reasoning.

This new understanding of effective teaching is quite different from the teaching that is typically found in most classrooms (Elmore, 1996; Goodlad, 1984; Sizer, 1992) and the type of teaching that is the focus of most teacher training or professional development programs (Cohen, McLaughlin, & Talbert, 1993; Darling-Hammond et al., 1995). At the

same time, this type of teaching is quite effective in educating students to high achievement standards (Newmann & Wehlage, 1993, 1995)—thus, the rapidly emerging understanding of the new kind of teaching needed in U.S. classrooms to teach all but the students with severe disabilities to high achievement standards.

Written Standards of Professional Teaching Practice

Not only is a new understanding of more effective teaching practice emerging, but so are efforts to articulate and describe this new form of teaching. Indeed, efforts to write detailed descriptions of good teaching practices, as well as to write a set of high and rigorous standards by which good teaching practice can be gauged, are significant and major innovations for both professional and lay understanding of teaching.

At least three major efforts to write standards describing high-quality effective teaching practice are underway. The NBPTS began this effort. The board was created in the aftermath of the 1986 Carnegie Forum on Education and the Economy report; its purpose was to develop an assessment system that could be used to "board certify" experienced teachers whose expertise met or exceeded high and rigorous standards of accomplished practice (Bradley, 1994; NBPTS, 1995). After a developmental period of several years, the board began to certify teachers in late 1994. The first board certificates were awarded to 81 teachers in January, 1995. The board hopes to offer, within the next 5 years, board certificates in approximately 30 areas.

As part of this process, the board created a series of documents that describe standards for teaching practice that a teacher must meet to become certified. Each of these documents identifies both the areas in which a teacher must be knowledgeable and the standards that would represent accomplished practice. The areas include, among others, understanding of subject matter and how students learn that content, knowledge of pedagogical practices and new forms of student assessment, engagement in professional activities within the school outside the teacher's own classroom, and outreach to parents. Each document is 30 to 40 pages; the goal is to describe the array of professional knowledge and competencies that teachers are expected to know and be able to deploy to earn board certification (e.g., NBPTS, 1994a, 1994b, 1994c, 1994d).

In a parallel effort, the Interstate New Teacher Assessment and Support Consortium (INTASC), which is housed at the Council of Chief State School Officers, in Washington, DC, is creating a similar set of standards

of practice for beginning teachers. The INTASC project seeks to develop an assessment system that states can use as a basis for providing a professional teaching license. The INTASC project is creating 30 or so documents, each about 30 to 40 pages, that describe the knowledge, skills, competencies, and dispositions to be expected of individuals who seek licenses to begin work in the teaching profession (e.g., INTASC, 1995a, 1995b).

The PRAXIS project of the Educational Testing Service is the third national effort to develop written standards for teaching practice. Just as with INTASC, the focus of PRAXIS is on beginning teachers, and the goal is to provide a way to license beginning teachers on the basis of what they know and can do, not just on the basis of taking a set of courses in an approved teacher training university program.

These three efforts also fit with the Professional Teacher Initiative of the National Council for the Accreditation of Teacher Education (NCATE). NCATE sets standards used to accredit university-based teacher training programs. The Professional Teacher Initiative suggests that the licensure process become performance-based and require teachers to pass tests of content, learning, and instructional knowledge, as well as a rigorous assessment of clinical skills. The goal is to align the standards required for accreditation with the standards expected for beginning teaching practice (Wise, 1995; Wise & Liebbrand, 1993).

In short, for the first time, efforts are being made to describe in detail, on paper, what good teaching entails, including a series of professional standards that must be met both to earn a beginning teaching license and to earn recognition for advanced, accomplished practice through national board certification. As is explained in latter chapters, such documents are critical to implementing a competency-based pay element for teacher compensation.

Assessment Instruments and Procedures to Identify What Teachers Know and Can Do

Finally, not only are the NBPTS, the INTASC project, and the PRAXIS program creating standards that describe teaching practice, but they are also creating assessment procedures and instruments that can be used to determine whether a person's teaching practice meets the written standards—as a condition of licensure for INTASC and PRAXIS or for advanced recognition for board certification.

In other words, these efforts are developing approaches to assess what teachers know and can do. INTASC and PRAXIS will have two types of tests. A combined multiple-choice and essay test will assess teacher subject matter knowledge and professional knowledge of pedagogy and of how students learn. The more ambitious assessment will actually assess clinical teaching practice in the classroom. This assessment will be a combination of on-demand tasks, simulation tasks, and more authentic assessments using portfolios and observations.

The portfolios for both the INTASC and NBPTS assessments are structured similarly; reflect an ambitious, professional, and performance-based strategy for assessing what teachers know and can do; and include several key tasks. One task requires testees to outline how they would teach an instructional unit; the task is intended to have the candidates indicate both their understanding of the key content aspects of the unit, as well as how students learn that unit. The task asks for demonstration of problem solving, reasoning, and communication within the subject area, and the types of manipulatives and other tools that would be used in the classroom. A second task requires a videotape of how the teacher actually taught a lesson that focused on teaching a procedure or a concept and demonstrated teacher-student discourse. A third task asks for different ways that teachers can assess student learning and achievement. A fourth task seeks information on how the teacher would facilitate a small-group lesson to a subgroup of students in the classroom. A fifth task asks teachers to discuss student work that shows understandings of the content matter being taught, such as mathematical problem solving, understanding, and communication and how the teacher used student responses to modify instructional strategies to produce better learning. Finally, a sixth task requires evidence of broader collaborative activities with colleagues that includes analysis of one's own teaching and contributions to the teaching field more generally. The key differences between the NBPTS and INTASC assessments are the number of elements within each task. The board might require several instructional units for Task 1 and work for several students in Task 5, whereas INTASC would have fewer such items within each task.

These assessments are breaking new ground in assessing the professional practice of teachers because they provide solid, psychometrically defensible methods for making summative judgments on the nature of a teacher's professional skills with respect to externally set standards describing teaching practice. They are used for high-stakes decisions—

licensure in the case of INTASC and PRAXIS, and certification in the case of the national board. Several states and districts pay a salary increment for teachers who earn board certification and/or make board certification a condition for advanced opportunities, such as lead teacher roles and mentor teacher programs.

Conclusion

In sum, a new and ambitious view of teaching is emerging, written documents that describe sophisticated teaching skills have been published, standards are being developed to assess practice with respect to the written descriptions, assessments are being created to determine whether a teacher's practice meets the standards, and important high-stakes decisions—including additional pay—are being made on the basis of the test results.

Although these initiatives describe, assess, and either license or pay teachers for performance, they do so to professional external standards, as opposed to comparing individual teachers with one another. Past efforts to link high-stakes decisions to teacher performance generally tried a more norm-referenced approach to identify the best or top teachers in a school or district. In contrast, the above efforts use a criterion-referenced approach with high and rigorous professional standards and seek to identify teachers whose knowledge, clinical skills, and dispositions meet or do not meet professional standards. The "best" teachers in many schools today may not meet the standards to earn board certification; the bulk of teachers in an excellent school could quite possibly meet those standards.

The standards describe an ambitious notion of teaching, a concept of teaching that would be effective in educating students to high standards. The assessments that have been developed show whether the practice of any one teacher meets those standards, not whether that teacher is better or worse than some other teacher in the school or district.

Finally, from conversations with several people involved in developing these assessments, we have concluded that "steps" or levels exist between the level of practice needed for licensure and the level of practice needed for board certification. These intervening levels, as we describe more fully in later chapters, could be used for significant salary increments—and as the focus of professional development—as professional expertise expanded from beginning to advanced status over the course of a teacher's career.

Standards-Based Education Reform Movement

The standards-based education reform movement is integrally connected to these new understandings of teaching. The goal of reform—to teach all students to high standards—is substantively based on cognitive research findings showing that students can learn to much higher levels. And by linking high-quality curriculum standards, teacher training, and professional development to the above notions of good teaching, standards-based reform depends fundamentally on deployment of such teaching to accomplish its goal.

Standards-based education reform has three strategic elements: (a) a focus on school performance and student achievement results, (b) a focus on new curricula and the professional skills they require for effective implementation, and (c) an understanding that schools must be restructured to provide this type of teaching and thus produce the new level of student achievement. Each of these strategic elements suggests needed compensation elements.

First, focusing on results reminds teachers and education organizations what needs to be achieved. Focusing on results can encourage continuing curricular and organizational change in the quest for better outcome performance. Student achievement is the complex result of individual differences and education experiences. In turn, education experiences are a function of the overall organizational and teacher capabilities of the schools. When the system focuses on results, teachers know they need to establish the capabilities that allow them to produce achievement results by linking individual student needs with appropriate education experiences.

Compensation practices can focus attention on results by tying them to rewards on the basis of schoolwide results, not on individual performance. Appropriate rewards would be based on school results. One purpose of this book is to outline how such a practice might work.

Second, research shows that although local teacher response to new ambitious curriculum frameworks is strong and positive, teachers generally have not been equipped with the knowledge, skills, and competencies to implement this new curriculum well (e.g., see Ball, Cohen, Peterson, & Wilson, 1994; Cohen, 1990; Cohen & Ball, 1990; Goertz et al., 1995). The new curriculum requires deeper and more conceptual understandings of curricular content, new pedagogical strategies that focus on concept development and problem solving tailored to the developmental needs of

each child, and new assessment strategies that identify both what students know and what they can do. Indeed, many teachers must engage in a "paradigm shift" from what and how they are now teaching to an entirely different mode of pedagogy. This shift will require new knowledge and expertise, and the specifics of this new expertise will vary by school context (Cohen et al., 1993; Darling-Hammond et al., 1995).

Creating this new professional expertise will require substantial investment of time and energy on the part of teachers and substantial investment of funds on the part of the education system in ongoing professional development. Although enhancement of professional expertise could be reward enough for teachers to engage in this process (McLaughlin & Yee, 1988), a change in the compensation structure to stimulate this engagement and to reward those who develop and use such new knowledge could also be warranted. Such a compensation structure could link funds spent on compensation directly to the expertise teachers need to effectively teach the new curriculum and increase student achievement. Another purpose of this book is to sketch how this element of compensation could be designed.

Third, a substantial knowledge base on how to design decentralized management systems includes changes in compensation despite conventional wisdom to the contrary. Past problems with decentralized management in education have largely been the result of incomplete design and poor implementation (Murphy & Beck, 1995; Wohlstetter & Odden, 1992). Research has found that effective school-based management strategies operate by decentralizing power, knowledge, information, and rewards; by creating an instructional guidance focus for change; and by providing facilitative principal leadership. This more comprehensive decentralization creates conditions in which school professionals can reorganize curriculum and instruction toward the above notions as the primary objective of change in school and classroom organization and in the use of resources (Smylie, 1994). This research also found that school-based management strategies could be strengthened if coupled with new compensation strategies (Darling-Hammond, 1996; David, 1994; Mohrman et al., 1994; Newmann & Wehlage, 1995; Odden & Odden, 1994; Odden & Wohlstetter, 1995; Odden, Wohlstetter, & Odden, 1995; Robertson, Wohlstetter, & Mohrman, 1995; Wohlstetter, Smyer, & Mohrman, 1994).

In short, standards-based education reform suggests at least the following new elements for compensation: (a) competency-based pay to develop the wide array of skills needed for teaching a high-quality cur-

riculum well and for engaging in effective school-based management and (b) group performance awards for meeting specified improvement in school results.

In this book, we also assess the degree to which these and other new compensation ideas could apply to education. As background, in the next chapter we discuss the history of change in teacher compensation and argue that the same macrofactors that led to teacher compensation change years ago operate today, thus presaging another round of change along the lines just discussed.

What We Have Learned From Attempts at Change

2

The single salary schedule represents one of three dominant approaches that have been used to compensate teachers in the United States during the past 200 years. The history of the single salary schedule provides a rich source of information about the context that can lead to successful teacher compensation reform and identifies successes as well as past mistakes that can be avoided in future compensation change efforts. Thus, in this chapter we examine the history of teacher compensation reforms that "stuck," as well as those that proved to be more fleeting. These experiences suggest that when compensation reforms have been successful, strong relationships existed among teacher compensation and the attributes of teachers, the school organization, and the institutional environment within which schools operate. We explore the importance of these relationships, with particular attention to what the current characteristics of teachers, schools, and public attitudes suggest about the possibility of a new fourth major era of teacher compensation reform.

Three Approaches to Compensating Teachers

Three major approaches to compensating teachers have been around since the early 1800s: boarding 'round, a grade- or position-based salary schedule, and the current single salary schedule (see also Protsik, 1996).

Boarding 'Round

In the 1800s, a major portion of teacher compensation consisted of free room and board provided in the homes of students' parents. Typically, each week, a teacher would move to another student's home and be provided room and board as part of his or her pay (Spring, 1994).

Today, moving from home to home and living with students' families may seem more like punishment than compensation, but at the time, the system met local needs. In the 1800s, most Americans lived in rural areas with limited tax bases, and the schools specifically catered to these agricultural communities. School calendars accommodated agricultural cycles; teachers were hired from among members of the community and were often relatives of school trustees (Tyack & Strober, 1981).

Teachers themselves rarely had more than an elementary education, and most were quite young. For example, 77% of female teachers in southeastern Michigan in 1860 were between 17 and 24 years of age (Spring, 1994). Job requirements focused on basic knowledge of reading, writing, and arithmetic and possession of a "certified moral character" and a middle-class appearance (Tyack & Strober, 1981, p. 134). The transitory nature of work in teaching and the nature of the curriculum discouraged investments of time or money in professional training.

Classroom lessons focused on recitation and memorization work by students and heavy use of "teacher-proof" curricular materials such as McGuffey Readers (Fuller, 1982). In the few instances in which passage of county examinations were required of teachers, the certificate awarded was little more than "the limit above total ignorance to be reached before a candidate could receive it" (Fuller, 1982, p. 162).

For women, a job in teaching acted as a transition from the parents' home to the husband's home. Teaching was rarely considered a career; in fact, most areas prohibited married women from working in the classroom. Likewise, many men frequently taught only as a supplementary source of income to farming. Other men used the public role of a teaching job to gain the community trust necessary to become a preacher or an elected official (Fuller, 1982).

In this context, the boarding 'round method of compensating teachers provided the local community with the ability to monitor the moral character of teachers. By providing room and board to teachers, the community had constant supervision over their comings and goings, which was particularly important if the teacher was new to the area (Tyack, 1974). Teachers in one-room schoolhouses had much discretion

over what went on in the classroom. At the end of each school term, students performed in community shows, featuring plays, recitations of poems, and spelling bees. But with the exception of this public display of their work, teachers generally were left to their own devices in the classroom, and families knew little about what went on there (Fuller, 1982). Competence was evaluated by the way teachers conducted their personal affairs in the community. Thus, the boarding 'round system enabled schools to operate with minimal public expenditures and met the needs of community members interested in monitoring moral characteristics of teachers. The limited training requirements for teachers meant that those in need of subsistence could quickly move in and out of teaching as economy and agricultural opportunity necessitated.

Despite these advantages, eventually the boarding 'round pay system petered out under the forces of demographic change and education reformers' will.

Grade-Based Salary Schedule

In the late 1800s and the early 1900s, the boarding 'round system was gradually replaced by a grade- or position-based salary schedule. This salary schedule reflected changes in the training of teachers and in the organization of schools and society. Under the grade-based system, teachers' pay was based on years of experience, gender, race, and the grade level taught. School administrators could also factor a subjective measure of merit into teachers' salaries, a measure that teachers came to view as overly arbitrary (Tyack & Strober, 1981).

The grade-based salary schedule provided higher wages for teachers as many states adopted minimum salary requirements in attempts to address the problem of high teacher turnover (English, 1992). At about the same time, however, individual cities adopted differentiated or position-based salary schedules for men and women and for whites and blacks. For example, in Boston in 1876, salaries ranged from $1,700 to $3,200 for male grammar school teachers and from $600 to $1,200 for female grammar school teachers. High school teachers were paid more: Men earned $1,700 to $4,000; women earned $1,000 to $2,000 (Katz, 1987). The ranges were based on the grade level a teacher taught, and where a teacher fell within that range reflected years of experience and the administrators' assessment of his or her merit. Under this system, accountability over the teacher's work shifted from the rural community members to county-level administrators.

These changes in teacher compensation were precipitated by three major changes relating to teachers, schools, and society. First, concerns about the quality of schools and a new belief in scientific management led to increased training requirements for teachers. Second, quality and efficiency concerns led to the consolidation of rural schools and the creation of larger, graded schools run under bureaucratic administrative structures. Third, the United States was shifting from an agrarian to a more urban industrial society and thus increasing the demand for urban education.

The first change was increased training for teachers. In 1896, the National Education Association Committee of Twelve on Rural Schools reported that rural school teachers were inefficient, incompetent, and in dire need of training (Fuller, 1982). A new and widespread belief in scientific management led professional educators to believe that scientific principles underlay teaching and that proper training could "cure" bad teaching (Fuller, 1982, p. 164).

The resulting training for most teachers took place at county teacher institutes led by county superintendents. The institutes were inexpensive and lasted for only a few days to a month. The institutes focused primarily on subject matter knowledge, although over time, teaching method courses were expanded. The emphasis on subject matter was particularly important, given widespread implementation of the "new education" curriculum, a response to the overly "bookish" curriculum of the rural schools (Fuller, 1982, p. 204). Rather than lead students through distinct lessons on spelling and math, teachers were supposed to integrate lessons on grammar, literature, arithmetic, geography, and history. Over time, agriculture and natural science were added to the curriculum in an attempt to enthrall students with the rural way of life.

With the reformers' new focus on training, states adopted teacher licensing procedures, which required passage of difficult county examinations. These exams typically were administered at the end of attendance at a teacher institute and often took 2 full days to complete. County superintendents graded the exams and, despite teacher shortages, failed more candidates than they passed. And although evidence on the efficacy of the exams for improving teaching was not strong, the exams did offer some assurance of teacher quality.

The second change led to improved quality and efficiency of rural schools: the consolidation of schools into larger districts to be expertly supervised by the county superintendents. Consolidation, reformers claimed, would produce larger and thus more efficient schools and save

money (Fuller, 1982; Tyack, 1974). Education professionals could more successfully standardize equipment and textbooks across a broader geographic area and could more easily supervise teachers. Additionally, consolidated schools brought citylike education conditions to rural areas, and educators hoped these conditions would raise rural students' performance. Consolidated schools became common by 1903 in the Midwest, once state legislatures passed laws allowing public education funds to be spent on transportation of students by wagon to the central schools. The consolidation movement enabled rural schools to become somewhat more like their larger, urban counterparts.

The third change was related to society. The gradual shift in the United States from an agrarian to a more urban, industrial economy necessitated major changes in the nation's schools. The number of children attending schools rose as fewer worked on the farms (Tyack, 1974). As a result of consolidation and urbanization, the number of one-room schoolhouses gradually declined, and the number of graded, consolidated schools grew rapidly. For the first time, students were placed by age and ability into classrooms with a more rigid curriculum. The highly bureaucratic, graded schools were typically supervised by male principals and superintendents. Local communities forfeited control over the hiring of teachers in exchange for what they hoped would be improved consolidated schools run by professionals. At the same time, new laws lengthened the school year by an average of 40 days during the period from 1890 to 1940 (Hanushek, 1994). Given the increasing requirements to earn a teaching certificate and the longer school year, few white men were attracted to seasonal teaching positions as a secondary occupation. In contrast, with limited occupational alternatives, many women still found the level of teacher pay attractive despite these added costs. The result was a hierarchical, graded school system with an almost exclusively female teaching force and a male-dominated administration.

The larger tax base of consolidated school districts, management oversight by professionals, increased training requirements for teacher candidates, and a longer school year all made the boarding 'round system impractical and obsolete. Under the new position-based compensation system, teachers across a city received a fairly uniform level of pay, contributing in one sense to a higher level of equity within the profession (English, 1992). This salary schedule also recognized that secondary school teachers typically had more years of formal education training and could command higher pay rates in other fields. Furthermore, the growing number of professional school administrators increased the costs of

public education. The ability to pay the mostly female teaching force less was one effective way a district could keep costs under control (Richardson & Hatcher, 1983). Finally, the state-set minimum salary level may have affected the high teacher turnover rates; the average city school teacher now remained for almost a decade (Rothman, 1978).

Despite these advantages, the graded pay schedule was overtly racist and sexist. Black teachers at both the elementary and secondary school levels were paid less than white teachers, and the mostly female elementary school teaching force was paid less than the largely male (though more educated) high school teaching force. In 1893, the Massachusetts Board of Education admitted that women's wages, when compared with men's, "are so low as to make it humiliating to report the two in connection" (Rothman, 1978, p. 59). This pay difference led to resentment and a sense of inequality among teachers. Many thought that teaching was teaching, regardless of the grade level taught, and that they should be paid for the job. This exploitation of female and black teachers led to the slow demise of the differentiated salary schedule. An increasingly assertive female workforce collectively demanded higher salaries under the principle "equal pay for equal work," eventually leading schools toward today's single salary schedule.

The Single Salary Schedule

In 1921, Denver and Des Moines became the first cities to introduce the single salary schedule to teachers (Sharpes, 1987). This compensation system was so named because all classroom teachers in the city were paid on the same scale regardless of gender, race, grade level taught, or family status of the teacher (Educational Research Service, 1978). Pay level was determined solely by a teacher's years of experience and level of academic preparation. By 1950, 97% of all schools had adopted the single salary schedule (Sharpes, 1987).

The creation and rapid growth of the single salary schedule was largely a result of changes in schools and society. The growth of the women's movement and the organization of labor led to several efforts to develop a salary schedule that would provide equal pay for equal work. For example, the Interborough Association of Women Teachers (IAWT) in New York, originally called the Women Teachers' Organization, fought a long battle for equal pay for equal work in teaching. In 1900, the New York State Davis Law brought the school districts of the five boroughs of New York City under one board of education, creating one position-based

salary schedule for teachers. Whereas previously, women teachers in Brooklyn received equal pay for equal work, now their pay was cut to a level below men's salaries. Each year from 1907 to 1910, the IAWT successfully lobbied the state legislature for passage of a law requiring equal pay for equal work in teaching. Each time the bill made it through the legislature, however, either the governor or the New York City mayor vetoed the bill, as the mayor was permitted to do on issues affecting the city. Male teachers, organized as the Association of Men Teachers and Principals of the City of New York, fought these equal pay bills by claiming that "women did not require the same standard of living as men, that women did not deserve equal pay, since they were intellectually inferior to men, and that equal pay would result in more women avoiding marriage in favor of work" (Carter, 1992, p. 48). Many men were simply afraid that equalization would mean a necessary cut in their own pay to stay within budget. Only after the election of a new governor and mayor in 1910—Democrats John Alden Dix and George B. Gaynor, respectively—was the equal pay for equal work for teachers bill signed into law in 1911 (Carter, 1992). This victory supported women's groups lobbying across the country. By 1925, 80% of women in the nation's largest cities had won equity in pay (Tyack, 1974).

Thus, when first implemented, the single salary schedule addressed two important teacher needs: equity and objectivity. Teachers were paid for teaching, not for the grade level they taught. The salary schedule was accessible, giving all teachers an equal chance to earn a pay raise under the same rules. The education component of the single salary schedule successfully encouraged more teachers to attend and complete college. Additionally, salary increases were no longer partially based on what teachers viewed as arbitrary administrative assessments of their merit. This change profoundly affected the nature of the working relationship between teachers and their supervisors. In effect, the single salary schedule helped eliminate administrative control over teachers' work, giving teachers greater autonomy in the classroom (English, 1992; Lipsky & Bacharach, 1983; Spring, 1994).

The single salary schedule has more advantages than just providing pay equity across grade levels, gender, race, and ethnicity. As stated above, it removed the essentially arbitrary and often capricious administrator assessments of teacher "merit," a notion that was very seldom defined explicitly. Further, the single salary schedule made teacher pay predictable; it showed any persons entering teaching what their salary would be

over a long time period and what they needed to do, other than continue in teaching, to earn salary increases. In addition, paying each teacher with similar education units and experience the same salary eliminated competition among teachers for more pay, a desired characteristic for a system that depends on cooperation and collegiality for best results. Finally, the single salary schedule was easy to administer; the bases for changing an individual's pay were neutral, objective, and understandable. In short, the single salary schedule has several inherent strengths that made it appropriate for schools when it was initially implemented, and it accounts in large part for why it has remained, for nearly the entire 20th century, the primary way teachers are paid (Lipsky & Bacharach, 1983).

Some Recent Short-Lived Efforts to Reform Teacher Compensation

Since the implementation of the single salary schedule, concerns have been raised about its appropriateness. But even in the face of significant changes in the roles of teachers, schools, and society, the single salary schedule has remained much the same as it was when first implemented in the 1920s. Its significant advantages—familiarity, predictability, and ease of administration—have made the single salary schedule resilient and hard to change. And as collective bargaining strengthened in the last half of the 20th century, teacher organizations viewed the single salary schedule as perhaps the only salary structure that provided fair and equitable representation to all teachers (Kerchner, Koppich, & Weeres, 1997).

But, the single salary schedule has not been without its critics. Some have expressed concern that the single salary schedule is unfair because it rewards teachers with the same education and experience the same amount despite different levels of effort, skills, professional competencies, or student results. Thus, in 1983, *A Nation at Risk* recommended teacher salaries be "professionally competitive, market-sensitive, and performance-based" (National Commission on Excellence in Education, 1983, p. 30). Districts and states across the nation responded with a flurry of activity by establishing merit pay, career ladders, and other incentive pay programs for teachers; most of these efforts were short-lived.

The 1980s were not the first time these types of programs had been tried. The first known merit pay plan was attempted in 1908 in Newton,

Massachusetts (English, 1992). Even the differentiated salary schedules of the early 1900s, which provided salary differentials for teaching roles that differed in terms of levels of responsibility, contained a merit component. Yet, the 1980s were the first period that had a national call for improving teacher performance through monetary incentives. President Ronald Reagan led the way, making merit pay one of his "bully pulpit" issues (English, 1992).

Merit Pay Plans

A wide variety of merit pay programs have been tried in districts across the United States, meeting with great publicity and limited success. Merit pay plans ostensibly award teachers bonuses for excellent performance, usually determined by a supervisor, although sometimes by peer review. The success of merit pay depends greatly on the ability of principals and peer teachers to identify and define "good performance" or "good teaching," a very difficult task. Hanushek (1994, p. 86) states, "No single set of teacher characteristics, teacher behaviors, curricular approaches, or organizational devices guarantees a high probability of success in the classroom." Essentially, different groups of students respond in different ways to different teaching practices.

Several studies have sought to understand why merit pay programs have never "stuck." Nearly all the studies have reached the same conclusions about merit pay (Educational Research Service, 1978; Hatry, Greiner, & Ashford, 1994; Jacobson, 1987; Johnson, 1986; Murnane & Cohen, 1986). First, most merit plans create competition among teachers by trying to identify a small percentage of the "best" or "excellent" teachers. Such a program is at odds with the collegiality and cooperative culture that is created in the most effective schools (Rosenholtz, 1989) and thus is a pay element that undermines rather than reinforces good school performance.

Second, *excellent* or *best* is rarely defined well. Sometimes, it pertains to teaching practice. Sometimes, it pertains to activities outside the classroom, even activities that have little if anything to do with teaching. But without a clear definition of *best*, the incentive goal of merit pay is undermined and becomes essentially a useless organizational element.

Third, the procedures for defining *best* and then for selecting teachers who fit the definition and allegedly meet those standards are usually flawed, often embarrassingly so. For such a system to work and to be

viewed as fair, it must be able to respond accurately and specifically to a teacher who asks, "Why wasn't I selected, and what do I need to do to be selected?" (Murnane & Cohen, 1986). Very few merit programs, particularly those supposedly focused on selecting the best teachers, can answer that simple question. As such, the programs are viewed with caution, if not skepticism, thus further undermining their intent.

Fourth, districts and states rarely provide stable funding for such programs. The programs are initially enacted with great expectation. They are usually funded at below required levels, and then funding is eliminated in a few years at the first signs of district fiscal stress. Again, this tactic undermines any potential incentive effect of the program; teachers know that "merit," however defined or administered, will unlikely be rewarded. This miserable funding record also suggests that merit programs are rarely conceived as critical elements of a state's or district's education program. Core elements are always funded; non-core elements are funded in good times but then are dropped as soon as budgets become squeezed.

Pay strategies that vary from the single salary schedule must overcome these fatal flaws of past merit pay programs. And, unless funded over the long haul, even well-conceived new pay approaches will not provide the incentives for a skeptical teaching force to adopt new behaviors (Smylie & Smart, 1990).

Murnane and Cohen (1986) found that the merit programs that remained over time were generally in very wealthy school districts that had ongoing funds for the program. They also found that the long-term programs tended to reward a large percentage of teachers, if not all teachers, and that rewards were most often provided for performing additional tasks, rather than for excellent teaching. As a result, the programs may have been termed "merit programs" but actually accorded additional pay for additional tasks in which all teachers engaged.

One district that typifies the ups and downs associated with merit pay is Fairfax County Public School District, Virginia. Adopted in 1987, the Fairfax County Merit Pay Plan was fully implemented in the district's 165 schools by the 1989-90 school year. Bonuses equaled 9% of salaries and were awarded each year for 4 years to teachers rated "skillful" or "exemplary" (Hatry et al., 1994). Although the procedures for identifying skillful and exemplary teachers were given some considerable attention in the plan's design and implementation, the plan did not, in those first 4 years, gain the support of the bulk of teachers or the teacher union. The plan was suspended in 1992 because of overall district budget cuts. The pro-

gram was restored 2 years later, but in a scaled-down version. Although the plan had public support, the two major local teacher organizations thought the plan was too costly and that it undermined teacher collegiality by creating a competitive work environment (Richardson, 1994).

The Fairfax plan, then, experienced a fate similar to the merit pay plans discussed above. The Fairfax plan suffered from problems of administration and implementation (even granting that it represented an ambitious and even professional effort to identify teaching expertise), creation of a competitive rather than collegial environment, and funding suspension at the first signs of fiscal stress. Unless a new teacher compensation approach can overcome such hurdles, it is unlikely to remain over time.

Career Ladders

Another type of teacher compensation innovation attempted in the 1980s was the teacher career ladder. A *career ladder program* sought to identify teachers whose performance met or exceeded standards for practice and then to provide them with leadership positions, such as curriculum or professional development. Career ladders were an attempt to address the flat career structure of teaching and to reward "good" teachers with both recognition and additional leadership responsibilities in the school. Some career ladder plans made a strong effort to maintain the presence of teacher leaders in the classroom, rather than to maintain the current career structure in which career advancement tends to move teachers out of the classroom and into administrative positions. But most career ladder programs also removed such teachers from the classroom for some time to engage in other tasks as diverse as curriculum development and teacher training. In addition, most teacher career ladder programs had "quotas" on the number of teacher leader positions.

The most recent survey of state career ladders conducted by the Southern Regional Education Board's Career Ladder Clearinghouse in April 1994 found only four states that still funded career ladder programs: Arizona, Missouri, Tennessee, and Utah. Evaluation of these show mixed results. In Arizona, students taught by teachers in the career ladder program showed increased achievement, lower dropout rates, and increased graduation rates (Cornett, 1994). These improvements were especially great in districts where the career ladder program focused on developing and improving teachers' classroom skills (Conley & Odden, 1995). Despite these positive results, the state has failed to provide consistent funding for the program (Cornett, 1994).

The career ladder plan in Utah has also met with state funding problems, along with some teacher opposition. The highly decentralized Utah program allowed districts to design their own plans. According to Timar (1992), some districts responded by focusing genuine organizational changes on teacher improvement, whereas other districts did not comply with the program's general intent and gave teachers across-the-board raises without including a performance, skill, or job-based requirement.

Summary

Overall, in a study of 18 school district programs since 1983, Hatry et al. (1994) found that most school districts that implemented merit pay and career ladder plans for teachers were unsuccessful in creating lasting and effective programs. Some districts reported positive effects such as reduced teacher turnover and absenteeism. Most, however, cited significant teacher morale problems stemming from competition, unfair evaluation practices, and the use of quotas in determining the number of teachers to receive awards. Programs were also viewed as costly (when funding was stable) and difficult to administer. Most programs were dropped within a few years.

The 1980s efforts at teacher compensation change thus fell to the same flaws as previous efforts at merit pay: funding curtailment, poor assessment and administrative procedures, quotas and other features that created competition within a desired cooperative culture, and opposition by teacher unions. Future teacher compensation changes that last will need to overcome these serious shortcomings.

A Time for Change?

Despite its resiliency, the single salary schedule could be improved. All compensation schemes implicitly send messages to teachers about desired professional behaviors. The single salary schedule encourages teachers to further their graduate education, even (in most districts) if the courses are not directly related to teaching assignments, in order to move to the right on the salary schedule—that is, to the higher-salary lanes (Clardy, 1988). Only modest evidence suggests, however, that graduate course work is a reliable indicator of teacher quality or classroom performance (Hanushek, 1994). Murnane (1983) reported that teachers who hold bachelor's degrees are typically just as effective as those who hold master's

degrees. Further, only modest evidence suggests that experience is related to teaching effectiveness; the relationship is strong only for the first few years of teaching (Ferris & Winkler, 1986; Murnane, 1983).

Although some debate the efficacy of either typical preservice undergraduate or typical graduate teacher-training courses to improve teaching effectiveness, evidence suggests that well-designed and -taught courses can have a major impact (Darling-Hammond et al., 1995). Because, as we shall argue, graduate courses and degrees could serve as indicators of knowledge and skill attainment in a competency pay system, research on the efficacy of course taking concerns "typical" teacher training courses and may not be relevant to recent programs and courses rigorously designed to develop competencies that reflect new teaching standards.

Perhaps the most common criticism of the single salary schedule is that it treats teachers with the same education level and experience as equals despite potentially unequal performance and skills (Lipsky & Bacharach, 1983). As far back as 1867, the superintendent of the Adams County, Pennsylvania, schools, Aaron Sheeley, claimed that paying all teachers the same wages "offers a premium to mediocrity, if not to positive ignorance and incompetence. Inducements should always be held out to teachers to duly qualify themselves for their work" (English, 1992, p. 6).

These problems are not new, but changes in the organization of schools, the roles of teachers, and an increasingly internationally competitive environment have heightened the importance of developing clearly aligned and directed incentive structures in schools. The loose coupling between the compensation incentives embedded in the single salary schedule and the goals of schools is becoming increasingly costly to schools with limited resources and increasing demands for improved performance. Thus, new and expanding roles for teachers, changes in the school organization, and societal demands may once again push the teacher compensation system toward obsolescence and renewal (see Kelley, 1996, for an expanded version of this argument).

Table 2.1 presents a summary of characteristics of teachers, schools, and society for each of the three eras of teacher compensation reform; however, the table divides the third era, the single salary schedule (1950 to the present), into three specific school models: the scientific management model of the 1950s, the effective schools model that was advocated in the 1970s, and the high standards/high involvement model that reflects current notions of a modern, effective school and the type of school envisioned by standards-based education form.

Scientific Management

The scientific management model represents the typical school at the beginning of the single salary schedule era—that is, in the first half of the 20th century. In this model, as under the position-based salary schedule, the role of the teacher was essentially to implement a teacher-proof curriculum. Skill levels for teachers were basically taught in preservice training but were still low relative to other occupations or to current skill level demands for teachers. Rewards for additional education units and certification requirements for promotion to administrative positions meant that many teachers continued their education beyond initial licensure; the primary incentive for the units element of the schedule was to encourage elementary teachers to earn a bachelor's degree and to pay more to teachers, usually high school teachers, who had earned such a degree. Education administration and graduate teacher education programs emerged over time to provide post-bachelor's degree training that also was rewarded. The single salary schedule was designed, in part, to encourage teachers to take advantage of more education by guaranteeing them a return on their investment (Conley & Odden, 1995).

The scientifically managed school maintained similar goals, structures, and leadership responsibilities as in the previous era; the primary goal was to teach basic skills for employment. The school structure remained hierarchical and bureaucratic, with a predominantly female teaching force and a predominantly male administrative structure. The superintendent maintained authority as the education leader in the district. He (very seldom she) was responsible for the results of the system. Principals and teachers implemented, in a fairly uniform manner across the schools, directives that emanated from the superintendent and central office.

Societal demands on schools focused on interest in an educated citizenry with basic and stable skills for employment and the ability to participate fully in the democratic process. Teacher knowledge and pedagogy learned in preservice teacher training generally were sufficient to teach the standardized school curriculum.

The single salary schedule, designed in this era, treated teachers equally, with a uniform base pay amount and rewards for additional years of experience. In addition, the single salary schedule acknowledged a belief in the utility of "scientific" training by rewarding continuing education. Although compensation for education units "loosely" reflected skills, it represented a small portion of overall compensation; initially, few teach-

TABLE 2.1 Changes in U.S. Teachers, Public Schools, and Society as They Relate to Teacher Compensation, 1800-2000

			Single Salary Schedule		
	Boarding 'Round (Early to mid-1800s)	*Position-Based (Late 1800s to mid-1900s)*	*Scientific Management (1950s)*	*Effective Schools (1970s)*	*High Standards/ High Involvement (1990s)*
Teachers					
Teacher's role	Moral leadership	Implement teacher-proof curriculum	Implement teacher-proof curriculum	– Provide services – Teach basic skills – Develop schools as communities	– Produce a high level of student achievement – Leadership/Shared decision making
Preservice training	Elementary school	High school/Teacher training institutes	College/Normal school	College/Graduate school	College/Graduate school
Licensing	None	State license/Passage of rigorous county examination	State license/ Minimal skills	State license/ Minimal skills	State license/Wide variation in skill requirements among states
In-Service Training					
Goals	N/A	N/A	Teacher education and administrative credentialing	Teacher education and administrative credentialing; training in pedagogy	Advanced disciplinary content; pedagogy; leadership, management and decision making
Source	N/A	N/A	Higher-education administrator and teacher education programs	Higher-education administrator and teacher education programs; district staff development	Higher-education disciplines and teacher education/leadership programs; school staff development; professional development

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Needs served	N/A	N/A	Promotion	Promotion Development	Development
Schools					
Goals	– Teach basic literacy – Moral character	– Teach basic skills for employment and citizenship	– Teach basic skills for employment	– Provide basic skills for employment – Focus on low income and urban populations – Address human growth needs – Schools as communities	– Provide high outcomes for all students – High competency and problem-solving skills – Flexibility and diversity in the workforce – Teacher professionalism – Decentralized/participative work organization
Structure	One-room schoolhouse	Bureaucratic	Bureaucratic	Bureaucratic	Decentralized/Flat
Leadership	Teacher/Community	Superintendent	Superintendent	Principal	Teacher teams
Society					
Frame of reference	Local community	City/County	State	State/Nation	State/Nation/Global economy
Expectations	– High moral character – Basic literacy	– Good citizens – Basic employment skills	– Basic skills for employment and democratic participation	– Equity concerns; basic skills for all despite adverse environmental conditions	– Internationally competitive workforce

ers took advantage of it. Indeed, the extra units were most often tapped as a way to earn extra compensation while taking the courses needed to leave teaching and enter the administrative ranks. No reward was offered for producing results.

Effective Schools

In the 1970s, a new model of good schooling began to emerge that reflected renewed national interest in equity concerns, new roles for teachers and administrators, instructional skills beyond those learned in most teacher training programs, and a more conscious school-based focus on student achievement results. Research published in the 1960s suggested that education outcomes were the result of differences in environment related to family socioeconomic status, rather than of differences in the quality of education or student aptitude. The notion that schools were unable to overcome inequities in family circumstance was abhorrent to many educators. In response, the effective schools movement arose in an attempt to identify effective means of overcoming environmental barriers to education (Cohen, 1983; Purkey & Smith, 1983).

Thus, the goal of the effective school was to provide basic skills for employment, with a particular focus on low-income, urban, and minority populations. The focal point for education effectiveness moved from the district to the school site. Schools were responsible for producing results. Schools also emphasized the importance of attending to human growth needs and to developing schools as communities within which all children—particularly low income and minority—could learn basic skills. The principal, rather than the superintendent, was identified as the instructional leader in an otherwise bureaucratic and hierarchical organizational structure.

Teachers in effective schools were thrust into new roles and were expected to engage in schoolwide education improvement activities. Because effective schools also recognized the importance of attending to the human side of students, teachers were expected to work to develop schools as communities that could meet the needs of each student.

Preservice training for the effective school focused on developing a large toolbag of pedagogical approaches. The range and depth of skills required in some cases, however, including specialized skills related to the specific needs of the local student population, meant that *in-service* training began to expand significantly beyond that rewarded in the single salary schedule. District pedagogical experts provided staff development

opportunities for teachers to continue developing an array of effective teaching skills after they were hired by the district (Brophy & Good, 1986; Cohen, 1983; Rosenshine & Stevens, 1986).

Further, training in "effective school" characteristics also emerged, in many places adding an understanding of school organization, structure, and culture to the knowledge base expected of teachers (Cohen, 1983; Purkey & Smith, 1983). In-service training for principals in new instructional leadership skills also expanded quite dramatically. Moreover, the focus on the school and the results it produced grew in intensity.

But the single salary schedule remained virtually untouched. It was not expanded for either teachers or principals to provide incentives or rewards for learning and using their new teaching and administration expertise. Moreover, teachers received no rewards for developing the expertise to engage productively in schoolwide improvement activities. Finally, no rewards were provided for improving schoolwide student achievement results—even though the goal of eliminating disparities in basic skill achievement across race and income lines was ambitious and desired. In short, although the roles, competencies, activities, and responsibility for results changed dramatically in the effective schools movement, the salary schedule remained the same, providing incentives for the old bureaucratic structure, levels of expertise, and roles, thus not undergirding the development of effective schools and in some ways undercutting those efforts.

The High Standards/High Involvement Model

The high standards/high involvement model combines elements of standards-based reform (Fuhrman, 1993) and site-based high involvement management (Mohrman et al., 1994; Odden, Wohlstetter, & Odden, 1995). This model arose in the 1990s in an era of increasing global competition. Changes in the structure of the workplace have created demands for public school graduates who have learned considerably richer problem-solving skills, as well as greater content knowledge, particularly in mathematics, science, writing, communication, and social studies.

The high standards/high involvement model is a school with very ambitious goals—all but the students with the severest disabilities learning to high achievement standards for complex subject matter—and different management structures designed to better achieve those goals. High standards means that schools are to produce a high level of student achievement, with a strong focus on high outcomes for all students,

extending concerns of the effective schools model but with much higher performance expectations for students. Student outcomes are to include a high capacity for problem solving, the ability to adapt to a changing work environment, and the ability to access and maintain a high level of understanding of difficult subject matter.

High involvement alludes to the importance of teachers centrally involved in not only school improvement but also school management for achieving the ambitious new school goals. The high involvement model means schools are led by teacher teams that are responsible for instructional leadership and school management (see Mohrman et al., 1994; Newmann & Wehlage, 1995; Odden & Wohlstetter, 1995; Robertson et al., 1995).

As a result of this high standards/high involvement model, extremely high skill and performance demands are placed on teachers. Teachers must develop and improve advanced content knowledge, advanced pedagogical knowledge (to produce high performance from all students), as well as leadership, management, and decision-making skills, which have traditionally been the purview of principals or district-level administrators.

The high standards/high involvement model places high demands on teacher training programs. It suggests not only the need for rigorous skill requirements for licensure but also the need to continue learning an array of skills once initial licensure has been earned (Darling-Hammond et al., 1995). Because the skill requirements to successfully operate within this type of environment are so high, it is also likely that few teachers will have mastered the variety of skills needed in preservice. Thus, the high standards/high involvement model also places high demands on *in-service* training and professional development, which could be obtained from a variety of sources: higher education institutions (disciplines as well as teacher education and leadership programs); school-led staff development; and professional development opportunities offered through professional associations, unions, networks of teachers, or independent consultants.

Currently, preservice, licensure, and in-service training tend to be woefully inadequate to address the needs of the professional teacher in this model of schooling. A variety of efforts, however (described in Chapter 1), are underway that have the potential to radically alter the current structure of teacher training and ongoing professional development.

The inadequacies of the single salary schedule become patently apparent when considered in the light of this third model of schooling: no rewards for teachers to develop ongoing skills needed by the school, to improve outcomes for students, or to achieve school goals.

As both the effective schools and high standards/high involvement school models reveal, the single salary schedule, despite its considerable strengths, does not provide the types of incentives that would strengthen either of these newer models of schooling. Both of these models suggest that as changes occur in the expected results from schools and for roles and expertise needed by the faculty within schools, changes in compensation could also be created that reward teachers and administrators for implementing these changes. This is not to say that the single salary schedule created in the first half of the 20th century is deficient; indeed, it accommodated the school system for which it was created. It may simply be less than adequate for the school system teachers and administrators are trying to create for the 21st century. In short, the current single salary schedule may need to be rethought in relation to the needs of the education system of tomorrow.

In the next chapter, we explore elements of pay that could be used to better align the compensation system with current expectations for teacher roles, organizational goals, and societal expectations of schools.

Elements of Pay and Compensation

3

Traditional compensation systems have been designed to promote tenure, predictability, and internal equity for employees (Zingheim & Schuster, 1995a). New compensation systems are being designed to promote the ongoing acquisition of skills and competencies, commitment to the key goals of the organization, accomplishment of results, and—in many organizations that in some places include schools—reduction of costs as well. As we argued in Chapters 1 and 2, the single salary schedule designed at the turn of the 20th century was adequate for the issues of tenure, predictability, and internal equity then but is not adequate for the issues of competencies, involvement in school management, and high levels of performance that schools require today.

As we described in Chapter 2, the single salary schedule replaced grade-based pay specifically as a result of concerns about internal equity issues. Unlike previous pay systems, the single salary schedule paid teachers on the basis of the same criteria regardless of race, gender, or grade level taught (Educational Research Service, 1978).

Although possessing some unique features, such as payment for additional education credits and degrees, this pay system typified the dominant approach to compensation used in business at the time. In fact, for nearly the past 100 years, businesses and education systems have paid people on the basis of the *jobs* they occupied. A key administrative task was to manage jobs. Activities were divided into numerous categories, jobs for different tasks were identified, skills for each of the many jobs were identified, and people were selected for jobs when they had the requisite

skills. Salary for each job was then set within a fixed range, with a beginning salary and annual increases up to a maximum level. The organization often tried to provide salary equity across different jobs by "equating" the economic worth of various distinct skill sets. To earn a higher salary, individuals needed to develop skills required for a different and higher-paying job. As tasks changed, new job descriptions were written, together with their skill requirements, and salaries were set according to external market conditions and internal parity for similar levels of job tasks and skill requirements. Usually, the highest salaries were paid to those in supervisory and management positions; within broad job categories, salaries increased only if the number of persons supervised increased. The assumption underlying these job-based pay systems was that a person's contribution to the organization was bounded by the parameters of the specific job he or she occupied.

More recently, changes in the structure of all types of work organizations suggest it is difficult and costly to maintain a job-based pay system that reflects the contributions that individuals provide to work organizations. In schools as in businesses, workers are increasingly asked to contribute in a myriad of ways to the achievement of organizational goals. These contributions are rarely bounded by a specific job held by the individual. Often, moreover, teams of employees work synergistically, pooling their knowledge and skills in ways that enable them to contribute more to the organization than they could working separately in narrowly defined jobs; paying for the job in this type of organization is, at best, complicated and, at worst, impossible.

In addition, and as vexing, individuals in many organizations are being asked to move in and out of job roles as needed to meet organizational goals. For each move, a job-based pay system requires that a job description be written and that the system "grade" the job for equity across the system and then set pay ranges and place an individual correctly in the pay range. Organizations have found that doing this as often as individuals change jobs is enormously expensive; the bureaucratic effort to maintain "equity" in this environment both increases costs at a time when organizations are pressured to do more with less and impedes the speed with which organizations, again including the schools, must respond effectively to changing environmental pressures and system demands (Hammer & Champy, 1993; Katzenbach & Smith, 1993; Lawler, 1986; Ledford, 1995a, 1995b; Mohrman, Cohen, & Mohrman, 1995).

As a result, numerous organizations are replacing steeply hierarchical organizational structures with flatter, more egalitarian structures. As part

of this process, they are moving away from identifying tasks and pay associated with specific jobs and toward identifying and managing the competencies needed within the organizations to accomplish goals and performance targets (Lawler, 1995; Ledford, 1995b).

As a result, many nonschool organizations are discovering that managing skills and competencies is a key management challenge of the 1990s (Zingheim & Schuster, 1995a). Some suggest that the human resources management role for creating high-performance organizations centers on developing organizational and individual competencies, often called *core competencies*. Indeed, Ledford (1995b) argues that the new "atom" of human resources management is "competencies" and no longer "jobs." The argument is at least twofold: (a) In many organizations, the nature of work is changing so fast that it is impossible to write, grade, recruit, select, and place people in individual jobs; and (b) work is increasingly conducted by teams for which each individual performs many "jobs" over the course of the day, week, and year, so that the mere notion of "a job" has become obsolete.

As the notion of "job" is replaced by the notion of "competencies," competencies also replace the job as the basis of compensation. Organizations are shifting away from the old way of paying knowledge workers for a job and toward sophisticated and quite elaborate competency pay systems (Ledford, 1995a, 1995b; Zingheim & Schuster, 1995a). Competencies include those needed for the technical aspects of the work, as well as team work, collegial, managerial, and other sets of expertise.

Education and teacher pay have generally followed the above pattern. School systems initially identified different education jobs—teacher, principal, supervisor, and superintendent. Teachers were paid a salary according to a fixed schedule with steps and lanes. To be hired, a teacher needed only the initial skills required for licensure. As education problems and diverse student needs expanded during the past 30 years, the education system's approach was not to require teachers to learn a set of expanded skills, but rather to identify new and specialized teacher positions—for example, special education, Title I, bilingual, gifted and talented, guidance counselor, psychologist, family outreach, professional developer, curriculum developer—and to pay these people according to a similar but somewhat higher-level salary schedule. Each teacher and specialized staff had a narrow job; problems outside the job definition were the responsibility of a different person. As a result, over time, the level of staffing in schools expanded dramatically (Odden, Monk, et al.,

1995). Indeed, in many districts the bulk of significant new money provided to schools during the past 30 years has been used to hire specialized staff (Rothstein & Miles, 1995).

As we concluded in Chapters 1 and 2, this might not be the most productive way to structure, organize, and manage schools—or to pay teachers—as we transition into the 21st century with the goal of teaching to high academic standards all but those students with the severest disabilities. Schools accomplishing this goal seem to be organized differently, in a much more decentralized manner and with much broader roles and responsibilities for teachers (Darling-Hammond, 1996; Miles, 1996; Newmann & Associates, 1996; Newmann & Wehlage, 1995; Odden & Wohlstetter, 1995; Odden, Wohlstetter, & Odden, 1995; Robertson et al., 1995; Wohlstetter et al., 1994). Just as in private-sector organizations seeking to produce higher performance, teachers in such schools no longer just have the job of teacher. Teachers teach, counsel, plan, manage, develop curriculum, train colleagues, evaluate practice, develop budgets, monitor progress, run meetings—in short, engage in a wide range of "jobs," each of which requires expertise to perform well. Thus, these schools also must manage competencies—to develop competencies for each individual and for the school as a whole so that the teachers within the school have the combined competencies to accomplish all the school's purposes and tasks.

Because a central element in the management of competencies is pay, it might also make sense to shift teacher compensation to a competency basis to align the pay structure with the new focal point of human resources management. Such a new compensation approach would seek to link teacher pay to expertise and skills that can be applied widely across the many specific job tasks in which teachers will engage, as well as to provide rewards for accomplishing school goals (Zingheim & Schuster, 1995a). Such a new approach to teacher compensation structures could also be used to communicate the new form of work organization in the evolving flat, more democratic, self-managed but highly accountable team-based schools. As Zingheim and Schuster (1995b, p. 12) state, "Traditional pay has failed to meet the challenge of communicating values, directions, and priorities that give the proper messages to people upon whom the [organization] depends for results. New pay is changing and evolving continuously as [organizations] seek competitive advantage."

Interest in aligning teacher compensation policies into the needs of the broader education system suggests a belief in the ability of compensation

policies to support other education reform strategies. Research evidence suggests that compensation policy can provide this support by serving a variety of organizational functions. As Lawler (1995) argues, compensation can be used to

- Attract and retain employees
- Promote skills, competencies, and knowledge development
- Motivate particular types of performance
- Shape organizational culture
- Reinforce and define organizational structure
- Determine the cost of compensation to the organization

These six functions of compensation are carried out through a combination of approaches to, or elements of, pay. Some of these compensation approaches apply to the traditional goals of job-based pay, which could remain even if competencies become the cornerstone of a new pay structure. Others have become embodied in new ways to pay workers, perhaps teachers as well. The six pay elements discussed below are the traditional approaches of (a) pay for membership and (b) longevity, and the new approaches of (c) skill or competency pay, (d) performance pay, (e) gainsharing, and (f) contingency pay.

Traditional Pay: Pay for the Job

Pay for membership in the organization, the first approach to compensation, is the entry level of compensation offered to new members. Traditionally, businesses have calculated pay for membership by incorporating information about the value of a particular position to the organization and about employment markets. Education organizations do this too, for example, by providing pay incentives to induce teachers into hard-to-recruit areas, such as bilingual education. Starting salaries are also set at levels to attract an adequate number of appropriately skilled applicants away from other opportunities in the market and to provide sufficient compensation to retain new employees until they can increase compensation through other elements of the pay system.

Beginning, or membership, salaries determine the competitive pool for new entrants to the organization. If beginning wages are insufficient, an insufficient number of employees and/or inadequately skilled employees

are likely to be hired. In the late 1970s and early 1980s, research showed that the quality of teachers had declined along with their salary decline in the 1970s (Schlechty & Vance, 1983). Some researchers today have expressed concern that noncompetitive salaries for teachers are currently failing to attract sufficiently skilled entrants to the teaching workforce to meet current and future demands (Darling-Hammond, 1994). Economists have argued that the combination of a primary female teaching force and increased opportunities for women in the broader labor market means either teacher pay needs to rise or a declining quality of people, particularly women, will be attracted to or remain in teaching (Manski, 1987; Rosen & Flyer, 1994).

The high standards/high involvement model of schooling described in Chapter 2 suggests the need for competitive membership pay to attract people who can develop into the content and pedagogical experts that effective schools of tomorrow will require teachers to be. As shown in Chapter 1, beginning teacher salaries today are modest, just below those of liberal arts graduates, farther below those of all other college graduates and significantly below those of technologically oriented college graduates.

States and local school systems should take seriously the importance of beginning teacher salaries and set policies that target the level of beginning or membership pay so that education can compete successfully for new entrants into teaching. Setting the average beginning teacher salary at the average for *all* college graduates would position education to more effectively recruit the number and quality of individuals into the high standards/high involvement/high performance education system needed for the 21st century.

Moreover, previous efforts to entice people to enter teaching, such as loan forgiveness programs, have very limited impact. Fellowships with service paybacks, in which districts, states, or the federal government pay costs up front, are much more successful (Odden & Conley, 1992). The latter should be designed if policymakers are serious about having a solid impact on the number and quality of people who enter teaching during the next decade.

Pay for longevity, the second approach to compensation and the other component of job-based pay, provides additional compensation to employees for remaining with the organization or in the profession over time. The single salary schedule's pay increments for years of experience are a form of longevity pay. Longevity pay is sometimes confused with skill-based pay because some people think of experience as a proxy for increas-

ing skills. Traditional longevity pay, however, provides all employees the same increases whether or not they increase skill and competency levels and thus is best conceived as membership rather than competency pay.

In education, caps on years of experience as teachers move from one district to another illustrate the notion that, in education, years of experience are not necessarily considered to be equivalent to years of increasing value of the employee to the organization.

As we discuss in Chapter 5, arguments may be made for longevity pay in education even with a drastically altered teacher competency system. One model we discuss provides longevity increments, but only for teachers who have attained a comprehensive array of professional expertise and at high professional standards; the notion is that the system may want to exert financial effort to retain teachers, but only the most skilled and accomplished teachers.

Finally, Kerchner et al. (1997) discuss the notion of the "electronic hiring hall," which they proffer as a new role for unions designed to provide career security for teachers even when positions in particular schools or districts might change more than they do today. In the past, longevity pay was also a pay structure element that contributed to stability and security, but new strategies must be invented for the ever-changing nature of schools in the future.

New Approaches to Pay: Pay for the Person

As discussed at different points above, new approaches to compensation seek to pay the person rather than to link pay to a particular job. This approach to pay attempts to identify the attributes of individual employees and to link pay increments to the attributes the organization needs to accomplish its goals. It is a way to use the pay system to motivate employees to continually increase their knowledge, skills, and competencies.

In the past, *skill-based pay* has been used as a generic term to described compensation of individuals for the skills they demonstrate, rather than for the particular job they occupy. More recently, skill-based pay has been limited to describing this type of compensation "in settings where the work tends to be more procedural and less varied" (Zingheim & Schuster, 1995b, p. 11), such as manufacturing or blue-collar work.

Competency pay, the third approach to compensation, has become the new term used to describe pay for the development of "more abstract

knowledge or for behaviors that are less easily observable than most skills in skill pay" (Zingheim & Schuster, 1995b, p. 11). Thus, the term *competency-based pay* is more often applied to workers in managerial and executive positions, for professionals, or for knowledge workers more generally.

The use of skill and competency pay is growing rapidly in the private sector and is also being tried in the school setting. Competency pay provides an excellent match for the needs of the school organization because it supports the development of a "culture of concern for personal growth and development and a highly talented work force" (Lawler, 1995, p. 17), what some have referred to as the development of a "learning organization" (Senge, 1990; Zingheim & Schuster, 1995b).

Because competency pay encourages career-long competency development, it provides an excellent match for the high standards/high involvement school of the 1990s, described in Chapter 2. Competency pay could be used to provide incentives for teachers to develop their knowledge, skills, and competencies in new and more effective forms of pedagogy, deeper and more conceptual subject matter knowledge needed to teach consistently with the ways children learn advanced cognitive expertise, and the leadership and management skills needed to engage in effective school-site management and decision making.

Research on skill-based pay in the private sector suggests that it tends to increase pay for individuals because it increases flexibility of the workforce and productivity of the organization. It also is associated with greater worker morale. In addition, organizations that use skill-based pay as an element of pay tend to invest more in employee training programs and are more likely to implement decentralized, worker involvement in organizational management (Jenkins, Ledford, Gupta, & Doty, 1992; Lawler, 1995; Lawler, Mohrman, & Ledford, 1995).

Skill or competency pay, like any other element of compensation, may be paid out to employees as an increment to base pay or as a lump sum bonus. Early research on skill-based pay suggested that it should be paid as an increment to base pay because the additional skills and competencies that were developed increased the long-term value of the individual to the organization (Lawler, 1990). More recently, companies have moved toward using bonuses to reward the development of specific skills and competencies and to reflect the fact that some skills provide short-term value to the organization but need to be replaced by other skills over time. Bonuses enable companies to reward employees for development of these critical skills and competencies without locking themselves into future

payments for skills that may become outdated. Bonuses also provide a stronger incentive for continuous skill improvement (Ledford, 1995a). As a result, schools may want to consider some combination of base and bonus pay to reward increases in skills and competencies.

As we discuss further in Chapter 6, Douglas County, Colorado, began to implement forms of skill-based pay in 1995. The plan began modestly with a bonus for skills in computer software packages—word processing, spreadsheets, and so forth. Places that converted career ladder programs into career development programs, such as Arizona and, for a while, Charlotte-Mecklenburg, North Carolina, also developed versions of skill or competency pay. And as discussed in Chapter 1, pay increments or bonuses for certification from the National Board for Professional Teaching Standards is a competency-based pay element.

Pay for Behaviors or Outcomes

Performance pay, the fourth approach to compensation, can reward specific behaviors or outcomes at the individual, team, or organizational level. At the individual level, performance pay is usually called *merit pay.* Performance awards are usually offered as additional pay for high or improved performance. As with skill and competency pay, they may be added to base salary or provided as bonuses, but bonuses provide a stronger incentive for continuous improvement in performance. Indeed, organizations that add performance awards to base pay discover that the highest-paid employees are those with the most seniority, not necessarily those who are the most productive. Although the tendency is to add performance awards or merit awards to base pay, it is much more strategic to provide them as a bonus so that they must be re-earned each year (Lawler, 1990).

In the past, the most common form of performance pay in education, as in other sectors, was merit pay. Merit pay provides rewards to individuals and is most appropriate in organizations in which the individual can control her or his own work and be readily evaluated on individual performance, circumstances that exist in fewer and fewer of today's organizations (Lawler, 1981, 1990).

Team and organizational level incentives, by contrast, are useful in organizations in which no single person is responsible for meeting organizational goals, but the service or product relies heavily on the work of many persons and interactions among them, a characteristic of many

organizations today, including schools. Indeed, the most rapidly emerging new form of pay in organizations outside education is group or team-based performance awards. These organizations continue to struggle with how best to design and structure such bonus programs, but the focus on the team rather than on the individual is becoming the clear norm (Heneman, 1992; Lawler et al., 1995; Zingheim & Schuster, 1995a).

We would argue that these two compensation elements—competency-based pay and performance pay—appear to be the cornerstones to a new compensation system that better reflects the needs of standards-based education reform and the type of new school organization it requires. Lawler (1995) describes two organizational styles that align compensation with the core values, processes, and practices of the work organization. The first style describes the historical management and compensation styles in education (the scientific management model of schooling and the single salary schedule with merit pay, as described in Chapter 2). This model maintains a top-down decision-making style, a centralized structure, a steep hierarchy, and a stable set of job skills. The compensation system that matches it includes job-based pay and individual performance, or merit, pay.

The second style, which Lawler (1995) calls an *employee involvement organizational design*, maintains wide employee involvement in decision making, a decentralized organizational structure, a more egalitarian rather than a traditional hierarchical approach, continuous competency development, and a relentless focus on results. This structure is much more like the high standards/high involvement model of schools described in Chapter 2. According to Lawler, the compensation system that matches this organizational style incorporates (a) group-based pay for performance based on organizational results and (b) base pay that is skill- or competency-based (Lawler, 1995).

In creating group-based performance awards, one key issue is the nature of the group. The group could include all employees in an organization, all employees in a unit of the organization, or individuals in various teams (including only teams that provide a full service and make a complete product). In the private sector, profit sharing is a type of performance award provided companywide; plant bonuses are those for just a particular subunit; and team performance awards are provided to groups within a plant or discrete organizational unit. Research shows that the "line of sight" between work effort and a performance award is strongest for team awards and weakest for companywide awards (see Chapter 4). Organizations often provide performance awards for nonfi-

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nancial results, including both quality improvements and customer satisfaction.

In education, the analog to these group units is the district, the school, and some subschool units such as houses and multiage teams. As education implements performance awards, it must understand the power of performance awards provided at these different levels. We guess that district-based performance awards would, as in the private sector, have the least impact; teachers might believe they can directly influence little outside their own school. We expect school-based performance awards would be the most appropriate. The education system must also discover whether school-based performance awards are the lowest workable level for such incentives or whether subschool, team-based performance awards can also be constructed.

Gainsharing represents the fifth approach to compensation. Under gainsharing, individual, team, and/or organizational bonuses are paid as a reward for identification of improvements in organizational processes that lead to increased efficiency. Gainsharing provides increments or bonuses for identifying ways to reduce costs and to maintain or improve the quality and quantity of work produced (Lawler, 1990).

Gainsharing may be a useful concept in education and could be paid to individuals, teams, or whole schools for identifying ways to improve efficiency (money savings) or to provide improvements in organizational outcomes (Lawler, 1990). In other organizations, gainsharing often is implemented after performance awards for improving results, particularly in organizations in which the need to improve results is more important than the need to cut costs (Mohrman et al., 1996). We argue that education fits this organizational scenario; although education might not see revenues rise over the near term (Odden & Clune, 1995c), it certainly faces pressures to increase results (Odden & Clune, 1995a). At the same time, gainsharing could induce education systems to think more about reducing labor intensity as individuals retire and move and about increasing the use of computer technologies to provide learning experiences. A gainsharing system that allows the remaining teachers to use that salary money to buy technologies while also restructuring their own work as a strategy to boost results seems appropriate because such a program would provide both a salary bonus and further increases in student achievement without an increase in costs.

And the sixth approach to compensation, *contingency pay*, makes a portion of pay contingent on the undertaking of specific activities. Contingency pay has been used successfully in the Saturn plant in Tennessee

to encourage employee participation in training programs. At Saturn, a portion of pay (approximately 5%) is held back and paid out only if employees participate in 80 hours of training activities each year. The total payout is contingent on group participation in training, not just individual, so if only 95% of employees participate in the required number of hours of training, only 95% of the withheld pay is paid out (Geber, 1992).

As we discuss further in Chapter 6, education has many possible applications of contingency pay. As discussed in Chapter 2, contingency pay is a more accurate label for the so-called merit pay programs that have weathered the test of time—that is, those programs that essentially pay teachers for engaging in extra tasks (Murnane & Cohen, 1986). But pay bonuses for engaging in professional development, for conducting any number of schoolwide improvement tasks, for developing new curriculum programs or units, for producing own-school quality reviews, or for doing a host of other potentially valuable activities is a strategy that could have some merit in education.

Conclusions

In education, as in other sectors, organizations "often initiate pay changes when they realize they are not getting the expected results from techniques that proved successful in the past" (Zingheim & Schuster, 1995c, p. 34).

New, high-performing school organizations, such as the high standards/high involvement school described in Chapter 2, are making significantly enhanced demands on teachers for increasing knowledge, skills, performance, commitment, and results. Traditional school organizational structures did little to focus teachers, after licensure, on the development of specific skills identified by the school as important to improve the education success of students. Traditional school organizations demanded less of teachers and therefore could afford teachers concerned mainly with their own classroom and to pay them in uniform ways. Traditional schools were content with limited coordination between the instructional efforts of teachers and the management efforts of administrators (Bacharach & Conley, 1986).

But, public and labor force requirements for better school results, increases in education standards, and a more complex student body no longer allow for the luxury of that more relaxed school environment. Evidence suggests that teachers and administrators must achieve closer

communication and that teachers must develop skills for the tougher curriculum that needs to be taught, for their new roles in school organization and management, and for the ambitious student achievement results that their efforts must produce (e.g., see Ball et al., 1994; Conley, Schmidle, & Shedd, 1988).

To send a more consistent message to teachers about what knowledge, skills, behaviors, and outcomes the schools value and expect, a new set of compensation elements could be developed for schools and the education system. One such approach would provide membership pay competitive with that of highly skilled college graduates entering other professions. Competitive membership pay is needed because new school organizations expect new teachers to have high levels of content knowledge and pedagogical skills and to be able, throughout their careers, to develop increased knowledge and skills in these areas, as well as the requisite skills to engage effectively in broader leadership and management of the school organization.

Competency-based pay may also be critical to a school culture that values continuous knowledge and skill development. In addition, competency-based pay would reward intellectual growth and development in an occupation that can require many years to develop expertise to the breadth and depth required in new school organizations. Moreover, competency-based pay would be consistent with the professional initiatives to license teachers on the basis of a beginning set of knowledge and competencies and to certify teachers on the basis of an advanced set of knowledge and competencies, both strategies linked to evolving curriculum standards (see Chapter 1). In this more professional system, competency-based pay would function as a bridge from beginning teacher status to board certification from the National Board for Professional Teaching Standards and would provide the incentive to continuously engage in professional development.

Group or school-based performance awards also seem increasingly appropriate to the emerging school organization as businesses, communities, and the nation call on the collective efforts of teachers to dramatically raise student achievement so that the country can develop an internationally competitive workforce.

Gainsharing and contingency pay could also contribute to a more effective pay package for teachers. Public schools must be accountable for public expenditures; gainsharing provides an additional incentive for employees to look for ways to provide the same or improved services at reduced costs. Further, as discussed above, gainsharing could also induce

schools to trade some school resources for computer technologies, as nearly all high-performance organizations exploit the full potential of computer technologies to restructure the workplace in the process of improving results at the same or even lowered cost structures.

Finally, contingency pay can be used (a) to better focus organizational attention on quality staff development and training programs or on efforts to collect and analyze data to monitor and improve school performance and (b) to develop additional approaches for continuous school improvement.

In the chapters that follow, we explore these elements of pay and compensation more closely and identify ways in which the education system could successfully incorporate them into new human resources and compensation policies for teachers.

Relationship Between Pay and Motivation

4

Before moving to specific proposals for redesigning teacher compensation, it is important to have some understanding of the theories underlying worker and teacher motivation, their connection to compensation, and the empirical research that shows to what degree and in what context they work. That is the purpose of this chapter. Readers with little interest in theory could move on to Chapter 5, as this chapter provides the theoretical motivation underlying the material that follows.

Many previous attempts to change teacher compensation were ineffective at motivating higher teacher performance because most of those programs were implemented with flawed understanding of the psychological theories of worker and teacher motivation and poor understanding of the school organizational context (Hatry et al., 1994; Murnane & Cohen, 1986; Shedd & Bacharach, 1991). In this chapter, we address the general issue of teacher motivation and how work conditions as well as salary structures in general and performance incentives are related to teacher motivation. To set a theoretical and organizational context, we begin with the broad literature on human motivation in work organizations. We then apply these broader understandings of motivation to teachers in schools and to potential new ways of structuring compensation that reinforce other elements that motivate teachers.

Theories of Motivation

Several theories explain how employees are motivated and the roles that incentive programs (e.g., compensation, which is the largest formal

incentive in any organization) can play in motivating workers. Rather than contradict each other, the various theories approach the issue of motivation from different angles and, combined, offer a more comprehensive understanding of how and why workers are motivated to higher performance and the contexts in which various compensation programs work. Contingency theory (not to be confused with contingency pay) addresses incentive pay from an organizational perspective; other theories—expectancy, goal-setting, social dilemma, and participatory management—approach the issue from the perspective of the individual. Moreover, each theory supports notions of both intrinsic and extrinsic motivation.

Contingency Theory

Contingency theory postulates that compensation and incentive programs work when they fit well with the basic strategies and characteristics of the large organization, including, more specifically, its human resources practices. The more closely the design elements of the incentive plan match the key strategies and overall vision of the organization, the more effective the incentive plan is at motivating employees and increasing productivity (Lawler, 1990; Welbourne & Mejia, 1995). For example, an incentive plan that targets employees organizationwide, as well as subteams within the organization, first through a profit-sharing plan and second through a team-based gainsharing plan, would fit an organization that desires high levels of teamwork across divisions, with employees working toward a single goal—profits. As an alternative, an organization emphasizing quality or customer satisfaction would provide performance awards for quality improvements or customer satisfaction, as several organizations now do. Organizations structured with self-managed teams would provide incentives to the teams, not to individuals separately.

In an expansion of contingency theory, Cumming (1994) states that the organization must support the processes that the incentive plan emphasizes. To continue the above examples, the same organization that desires teamwork across divisions must provide for open systems of communication among teams and for training in teamwork and decision-making skills. An organization that emphasizes quality and customer satisfaction must have clear quality benchmarks and feedback from customers. If organized through self-managed teams, the teams must have the means to get the job done (Lawler, 1986). Substantial empirical research generally supports contingency theory (Welbourne & Mejia, 1995).

Goal-Setting Theory

Goal-setting theory was first proposed as a psychological theory of employee motivation by Locke (1968). According to the theory, goals motivate employee behavior when they are specific, challenging, and accepted as worthwhile and achievable. Indeed, research shows that simply setting clear and measurable goals motivates employees to higher performance (Mento, Steel, & Karren, 1987; Mohrman & Lawler, 1996; Rowan, 1996).

Incentive pay is easily embedded within goal-setting theory simply by adding a financial award to the attainment of goals. Wright (1989) demonstrated that incentive pay increases employee commitment to goals. Other empirical research shows that larger incentive rewards can be provided when employees set more challenging or multiple goals, thereby reinforcing the importance of goal setting (Heneman, 1992). Finally, Heneman (1992) concludes that motivation will be greatest when goals and rewards, which largely include financial rewards, are coupled (through a performance award) rather than separated as two solitary issues.

Expectancy Theory

Expectancy theory is the most prominent theory used to understand employee motivation and the design of effective compensation programs. It draws from psychology to provide insight into compensation plan elements that are effective in motivating people. Expectancy theory postulates that people will respond favorably to an incentive program if three conditions are met (Cumming, 1994; Heneman & Schwab, 1979; Heneman, Schwab, Fossum, & Dyer, 1989; Johnson, 1986; Lawler, 1986, 1990; Welbourne & Mejia, 1995). First, people must believe that they can accomplish the goal embodied in the incentive plan and that doing so is substantially within their control; that is, successful goal accomplishment must be seen as realistic, and workers must believe they have the ability, skills, competencies, and authorities to accomplish the task being rewarded. This is called *expectancy*. Second, employees must perceive a connection between their individual effort and receipt of a reward. This is called *line of sight*. Third, employees must value the reward itself enough to put forth the effort to achieve it. This is called *valence*. Expectancy includes having sufficient resources (time, energy, peer support) to achieve

higher performance—that is, workers having sufficient control over their work environment to mobilize their efforts toward goal attainment.

This theory does not encompass all aspects of the organizational or individual context for motivation and incentive programs, however. For example, Lawler (1971) describes a situation in which employees can see the link between their performance and pay and also value higher pay, yet not be motivated to improve performance if there also are strongly negative consequences to working harder, such as rejection by peers or exhaustion.

Considerable empirical research supports compensation programs based on expectancy theory. Because the line of sight between an individual's effort and an award is potentially the most direct, incentive programs closer to individuals, such as competency-based pay or team performance awards, have the strongest empirical support for their effectiveness in stimulating motivation (Blinder, 1990; Heneman, 1992; Heneman et al., 1989; Kennedy, Fossum, & White, 1983; Lawler, 1971, 1990; Wanous, Keon, & Latack, 1983; Welbourne & Mejia, 1995).

Social Dilemma Theory

Social dilemma theory addresses motivation and behavior under *group* incentive programs. Based on economic perspectives, social dilemma theory proposes that, in group situations, individuals have an incentive to become free riders—that is, to shirk in their work effort and still receive incentive pay for the extra effort put forth by coworkers. In other words, some workers can benefit from the efforts of the group without contributing to that effort. This complements expectancy theory in that the line of sight between individual effort and group rewards is somewhat less clear, thus potentially reducing the motivation to work harder for the incentive award.

In reviewing the literature on the social dilemma, though, Richards, Fishbein, and Melville (1993) concluded that the free-rider issue is more theoretical than actual. Further, the structure of the work team can mitigate the free-rider problem because the work team has enormous influence over the work behavior of each person on the team. When group effort is coordinated and workers understand how everyone's effort is interdependent, the social dilemma can largely be eliminated. Runge (1984) asserts that free riding can be minimized when the group communicates expectations on fair individual contributions to group effort. When individuals know what level of performance is expected, they

generally contribute according to those expectations, a behavior in line with goal theory—the goal being the expected level of effort and performance.

Participative Management Theory

Finally, *participative management theory* suggests that when employees, particularly highly educated employees, have a voice in important decisions on both organizational objectives and job-specific duties, they are more likely to be motivated to work and to be committed to the organization. Vroom (1964) explains that when employees are involved in decision making, the decisions become theirs and they have a greater stake in making those decisions become successful. Both Lawler (1973) and Welbourne and Mejia (1995) review the rather extensive literature on how participative management systems affect group behavior and motivation. These reviews found that participative management works when group norms support participation and that, generally, participative management works as the theory suggests.

Job involvement is a modern aspect of participative management theory. Job involvement connotes a situation in which employees are formally asked to make important decisions about the nature of the work tasks; such involvement can take the weak form of a quality circle or the strong form of high-involvement management. Quality circles are relatively weak because they exist outside the regular organization and too seldom have a lasting impact on the regular organization. High-involvement management, by contrast, reflects a substantive management decision to restructure and decentralize substantial decision-making authority (Lawler, 1986). Nearly all research on job involvement shows that it increases both individual motivation and organizational results (Blinder, 1990; Lawler, 1986, 1992; Lawler et al., 1995).

Implications of Motivation Theories for Compensation

These motivation theories have implications for the ways in which organizations can enhance worker motivation through both intrinsic and extrinsic factors. Goal-setting theory suggests the importance of setting clear and measurable goals for both organizational results and individual

and group performance. Expectancy theory suggests that motivation can be enhanced (a) when incentives are tied directly to goal attainment; (b) when employees are given the opportunity to expand and develop new work skills through training, thus enhancing their capacity to accomplish work tasks; and (c) when employees are given more control over their work structure, thus allowing them to decide how best to accomplish goals. Participative management theory suggests that employees are more satisfied and motivated to work when their jobs are enlarged to include management tasks, such as involvement in decision making, thus providing more worker involvement in determining both immediate work conditions and work processes. Overall, motivation theories suggest that employees are more likely to be intrinsically motivated when they have control over the quality of their work and are given ample opportunities to create a sense of professional efficacy through goal setting, professional development, job enlargement, job involvement, and goal attainment.

Extrinsic variables, including salary structure and performance incentives, can also motivate higher work performance. For example, so-called soft extrinsics, such as reward programs, dinners, and trips, can be successful at recognizing employee achievements and making employees feel more valued by the organization. Small cash awards or dinners, for example, can have the advantage of immediately linking performance to an award (Lawler, 1990).

Moreover, certain compensation structures use extrinsic motivators to support and reinforce intrinsic motivation. For example, skill and competency-based pay can reinforce the development of skills that are crucial for goal-setting, expectancy, and participation theories to work. Development of skills and competencies becomes an intermediate objective that provides the line of sight to accomplish the goal. Skill- or competency-based pay offers employees compensation, not for the specific jobs they perform, but rather for the sets of skills they bring to the workplace. For example, an auto worker paid under a skill-based pay plan would be compensated for the ability to complete any number of assembly tasks, rather than for simply knowing just one task, such as attaching a door to a car. Under this compensation scheme, employees are encouraged to develop multiple competencies and skills to become more flexible workers for the organization and then are compensated more for having the wider array of talents. The emphasis on professional development and learning new job skills is intrinsically motivating and is then reinforced by the compensation system—the formal, extrinsic reward in nearly all organi-

zations. A competency-based pay system also follows contingency theory in that organizational objectives and human resources practices are aligned; here, pay supports professional development and employee flexibility, both of which lead to higher rates of productivity. Nearly all studies show that skill-based pay plans, for both knowledge and production workers, enhance employee motivation and productivity (Heneman et al., 1989; Jenkins et al., 1992; Ledford, 1995a, 1995b; Schuster & Zingheim, 1992; Zingheim & Schuster, 1995a).

Certain forms of performance awards can also be used to support intrinsic motivation. Group-based bonus plans reward organizational teams for meeting stated goals. These reward plans typically focus on measurable, quantitative outcomes to determine rewards, but the results can be financial, as well as service quality or customer satisfaction. Therefore, as contingency theory predicts, the alignment of bonuses with goal setting and collaboration can lead to productivity increases and improved employee motivation (Blinder, 1990; Lawler, 1990; Schuster & Zingheim, 1992). Group incentives, such as salary bonuses and gainsharing, all signal the importance of teamwork and collaboration, which have been shown to enhance worker motivation (Blinder, 1990; Lawler, 1990; Welbourne & Mejia, 1995).

But Lawler (1990) also shows how some group performance award programs inherently contain a line-of-sight problem. In a system with many organizational units (e.g., a school district with several schools), any employee may not see how his or her performance directly affects the performance of the entire system, thus diminishing the potential of a systemwide performance award to motivate greater work effort. Further, nonmanagement employees typically have little control over the larger management decisions that can lead to better results (Lawler et al., 1995). Thus, systemwide performance awards are less likely to have a motivational impact on employees than organization or team awards or gainsharing plans, all of which include the important direct participation component and a more direct line of sight between work effort and award.

Gainsharing plans distribute bonus awards when goals are met while costs are cut relative to some baseline. Gainsharing plans typically include employee participation in decision making as part of the system, which participative management theory and job involvement have shown to be effective at raising motivation. Furthermore, gainsharing plans specifically set targets for productivity increases that lead to receipt of the bonus. By setting these targets, employees have clear goals and expectations for

their work, which goal-setting theory has demonstrated is effective at enhancing intrinsic motivation. When nonmanagement employees are encouraged to use their expertise about the work process and to make changes to increase productivity, gainsharing plans give employees opportunities to expand their jobs, become more involved, collaborate with colleagues, and improve the quality of their work, all of which increase intrinsic motivation. In a review of 71 studies on gainsharing, Welbourne and Mejia (1995) reported that nearly all showed positive effects on firm productivity, as well as improved quality, lower costs, better attendance, and higher employee satisfaction on the job.

But not all extrinsic incentive plans are successful at motivating employee performance; in fact, some are detrimental to job satisfaction and intrinsic motivation. Most ineffective plans involve either individual incentive or merit pay plans, which award bonuses to employees on the basis of either subjective supervisor ratings of their performance or financial or quality targets linked to the individual. The problem with most individual incentive systems or merit pay is that they are inappropriate for work organized into teams or groups, the work form increasingly dominating most workplaces (Lawler, 1992). Merit pay plans foster competition among individuals and thus work against collaboration on the job. Individual performance awards create incentives for employees to do what is best for themselves, and not necessarily what will benefit others. Lawler (1990) concludes that individual incentive plans can only work (a) in very specific circumstances with employees who do very simple and well-defined tasks that are easy to evaluate (e.g., piecework, sales) and (b) in organizations where employee flexibility and collaboration are not needed, which clearly excludes the public education system.

Summary

The numerous theories of motivation identify several variables, including compensation structures, that motivate workers to high or improved performance. Empirical research demonstrates that contingency theory offers valuable insight into organizational practices that can support motivation, whereas expectancy, goal-setting, and participative management theories all help explain individual psychological responses to incentives. Employees rely on both intrinsic and extrinsic motivators to maintain job satisfaction. Effective intrinsic motivators include clear goals and expectations, opportunities for professional development, job en-

largement and involvement, and achieving efficacy through attainment of reasonable performance targets. On the extrinsic side, sufficient salaries, soft extrinsics, and new compensation systems such as competency-based pay and *group*-based performance awards can all support high levels of employee motivation; indeed, these forms of extrinsic rewards can reinforce intrinsic motivating factors as well.

Critiques of Extrinsic Incentives

Despite the rather consistent and positive research results on new forms of compensation, a few opponents of performance pay continue to criticize the use of incentive pay in the workplace. Two of the more publicized criticisms are those of Alfie Kohn and traditional adherents of total quality management (TQM).

Kohn's (1993) main argument is that incentive pay, an extrinsic factor, manipulates employee behavior such that people lose intrinsic interest in their work and stop cooperating or collaborating with coworkers and thus destroy work relationships and reduce organizational performance and productivity. The theoretical basis of Kohn's criticisms derives mainly from McGregor's (1957/1992) Theory Y perspective on workers (that workers are inherently motivated) versus the Theory X perspective (that workers need to be controlled) but ignores most of the more recent theoretical postulations discussed above. Further, the bulk of the studies on motivation that Kohn cites are laboratory experiments, sometimes with children, rather than studies of the behavioral responses of adults in real work settings with actual incentive plans. The negative findings that Kohn cites from the workplace generally pertain to individual merit pay or to individual incentive plans in organizations that require more teamwork than individual work. In these settings, Kohn's findings are not surprising; merit pay plans rarely work, a conclusion also reached by many proponents of group performance awards (Heneman, 1992; Heneman & Young, 1991; Lawler, 1990; Schuster & Zingheim, 1992).

Some TQM adherents, such as Scholtes (1994a, 1994b, 1995), suggest that use of compensation for employee motivation is antithetical to the TQM approach for a variety of reasons. First, TQM argues that performance problems in organizations are caused by improperly functioning *systems*, not poorly performing *individuals*. Second, TQM assumes that all employees are intrinsically motivated. Thus, TQM adherents argue that performance assessments of individuals blame/credit *individuals* for poor/good *system* performance. Use of compensation to motivate em-

ployees, therefore, too often prevents organizations from addressing the systemic problems that are central to an organization's poor functioning.

TQM supporters also argue that performance assessments, which are at the root of most merit pay plans, tend to be made on the basis of anecdotal evidence or personal relationships, rather than on any objective measure of employee performance. Linking compensation to individual performance assessments, thus, pays some individuals more than others on the basis of inaccurate information and thereby demotivates rather than motivates employees.

Advocates of performance pay and group incentive plans would agree with Kohn and TQM supporters that, in many situations, such rewards do little to improve productivity or to enhance employee motivation. Individual merit and incentive plans are the big culprits to avoid, particularly for settings that require collaborative work. But as the preceding section showed, several other new pay systems, including competency-based pay and group performance incentives, can work with and reinforce other intrinsic factors that motivate employees to work harder for greater organizational results. Mohrman (1989), moreover, shows how carefully designed performance appraisal and pay plans can overcome many, if not all, of the concerns of Kohn and TQM adherents, particularly if they (a) focus on enhancing employee knowledge and skills, (b) signal continuous improvement of skills, competencies, and organizational results, (c) avoid individual awards and competition among workers, and (d) exist in new organizations that significantly involve workers in organizing and managing their activities. Further, even Scholtes supports the notion of competency-based individual pay and group performance awards through a gainsharing plan if the workplace is restructured to strongly involve all workers, if TQM management processes are firmly in place, and if costs and firm results are clearly measured (P. R. Scholtes, personal communication).

Applications to Education

The above theoretical and empirical research on motivation can serve as a framework for considering the work conditions, pay, and performance awards that can affect teacher motivation in schools. In this section, we examine the literature on teacher motivation, first applying the general theories of motivation to teachers in schools, and then discussing the key financial variables that affect teacher motivation and behavior. The stud-

ies discussed provide insight into potential new teacher compensation structures that could reinforce intrinsic motivators, just as they do in organizations outside education.

Theories of Motivation Applied to Teachers in Schools

Goal-Setting and Expectancy Theories

Teachers are primarily motivated by two major factors: helping students achieve and collaborating with colleagues on teaching and learning issues. Collaboration helps teachers develop a set of effective instructional strategies that, when deployed, positively affect student achievement. When these connections occur, teachers develop a sense of professional efficacy, or confidence, that students in their classrooms will learn; over time, this motivates teachers to higher performance. These conclusions about teacher motivation align with goal-setting and expectancy theories (Conley, 1991; Little & McLaughlin, 1993; Lortie, 1975; McLaughlin & Yee, 1988; Rosenholtz, 1989; Smylie, 1994).

A good example of these phenomena is Rosenholtz's (1989) study of effective schools in Tennessee. The schools that Rosenholtz identified as effective, called "moving" schools, had established clear, specific, and measurable goals for student achievement. Teachers shared these school goals and were committed to accomplishing them. These schools were also characterized by a high degree of teacher collaboration. Teachers collaborated to develop teaching strategies that were successful in improving student achievement. Teachers in these schools believed that their own professional learning was an ongoing, never-ending process. Success in producing student achievement not only was an ongoing motivator for teachers in these schools but also helped them develop a sense of professional efficacy; they were confident of succeeding when they entered their classrooms. In moving schools, the entire organization worked together to enhance student welfare and learning; superintendents, principals, and teachers all saw their work as interdependent.

Rosenholtz also identified ineffective, or "stuck," schools. These schools had either grandiose, immeasurable goals, such as teaching all students to their maximum potential, or just unclear, fuzzy goals. Teachers in stuck schools did not receive support from superintendents and principals for their professional development efforts. Teachers felt isolated from each other and found little time for collaboration. Their teaching

strategies were the product of their own individual work. In these schools, most teachers were uncertain about their technical teaching abilities, thought that teaching skills were predetermined and inflexible, and were uncomfortable with others watching over and evaluating their work. Rosenholtz (1989) found that the goal for teachers in stuck schools often had little to do with student learning; instead, teachers simply wanted to get through each workday.

Rosenholtz's findings align with expectancy and goal-setting theories. Teachers in moving schools had specific, measurable, and attainable goals for student achievement. They were given the tools necessary to accomplish the goals, including time for collaboration and resources to engage in ongoing professional development focused on instructional strategies. As a result, teachers in moving schools had and believed they had the capacity to produce student outcomes and actually did so. And, as expectancy theory would predict, they were thus motivated to help the school organization succeed in its mission. Rosenholtz's research, however, did not include analysis of how changes in compensation, such as competency-based pay and group performance awards, could be used to enhance teachers' motivation even further.

A wide variety of additional research in school settings supports the motivating influence of high-quality professional development. McLaughlin and Yee (1988) interviewed 85 teachers in five districts in California to study their conceptions of a satisfying career. Nearly all the teachers (94%) reported a desire to remain in teaching rather than to move into administrative positions; advancement for these teachers meant the chance to continue to grow in professional skills, particularly through collegial interaction. McLaughlin and Yee (1988, p. 28) state that "teachers with rich opportunities to grow and learn are enthusiastic about their work and are motivated to find ways to do even better." Numerous other studies report similar findings on how opportunities to engage in professional development contribute strongly to teacher motivation (Firestone & Pennell, 1993; Hart, 1994; Lieberman & Miller, 1991; Little, 1982, 1993; Little & McLaughlin, 1993; Rosenholtz, 1989).

Social Dilemma Theory

Social dilemma theory is only beginning to be tested within the education setting. Several states and districts have begun to implement group, usually school-based, performance awards, plans to which social dilemma theory and the free-rider problem apply. South Carolina, Kentucky, and

Dallas, Texas, are implementing performance awards that accrue to all people in a school if student achievement meets or exceeds some performance improvement target. These programs have not been subject to a free-rider analysis, but they have been shown to help improve student performance (Clotfelter & Ladd, 1996; Kelley & Odden, 1995; Richards & Sheu, 1992).

Participative Management Theory

Participative management theory also seems to hold for teachers. Research is clear that teachers want to be involved in decisions affecting the curriculum and instructional program (Conley, 1991; Conley & Bacharach, 1990; Shedd & Bacharach, 1991). Although research seems to be mixed on whether teachers also want to be involved in other issues—broader organizational and management issues—that are involved in running a school, more recent research suggests that the best and most professionally oriented teachers want this kind of involvement (Hart, 1994, 1995).

Teachers who are highly involved in restructuring schools influence multiple aspects of the school organization. In these schools, teachers frequently work in teams, and the teams are responsible for every aspect of service delivery to students. Their involvement includes setting goals for student growth, determining how best to achieve those goals through new curricular and instructional strategies, applying resources toward that end, and working collaboratively to attain those goals. Job involvement can include working on teacher professional development and teacher evaluation by peer teams. In some cases, teachers make decisions on budgets and facilities.

Mohrman et al. (1992) and Mohrman and Lawler (1996) argue that participation in job involvement activities enhances intrinsic satisfaction because teams of teachers have the authority to use their expertise to create the working conditions that most influence service delivery and student performance. In many cases, teachers who lack these opportunities to influence their work environment and who have little control over schoolwide decisions feel frustrated and discouraged (McLaughlin & Yee, 1988).

Hart and Murphy (1990) identified a sample of high-promise and low-promise early career teachers (fewer than 5 years of experience) and conducted interviews to test how they responded to restructuring, work redesign, and job involvement. Teachers were labeled high- or low-

promise on the basis of undergraduate grade point average and principal ratings of their performance. On the basis of this sample, Hart (1994) reported that teachers at all levels expressed a desire to take on more responsibilities, to use greater authority, and to participate in professional development activities. But high-promise teachers were significantly more likely to value opportunities to take on extra schoolwide responsibilities and claimed that long-term school leadership positions enhanced their job satisfaction.

Shedd and Bacharach (1991) similarly reported that teachers who worked in coordinated and cooperative teams were more motivated at work and were more successful in achieving improved education outcomes such as higher student achievement. Other studies and literature reviews show the same results: Teachers want to work in and are more highly motivated by an atmosphere that promotes professional collaboration. In short, research strongly supports the assertion that teachers want more job involvement opportunities and find enhanced motivation from these expanded roles (Conley, 1991; Darling-Hammond, 1996; Hart, 1994; Johnson, 1986; Lortie, 1975; Louis, Marks, & Kruse, 1995; Malen, Murphy, & Hart, 1987; Smylie, 1991; Talbert & McLaughlin, 1994).

Emerging research on teacher involvement also shows how the combination of the above theories can work to enhance not only teacher motivation but also education system performance. A 5-year study of school restructuring found that teacher empowerment (teacher involvement in schoolwide strategic and operational decisions) by itself did not directly improve student achievement or motivation. Teacher empowerment worked when it was (a) targeted toward improving the curriculum and instruction program to meet high standards and (b) used to produce a teacher professional community characterized by collaboration in developing effective instructional strategies and teacher responsibility for student achievement. The result of these efforts was greater student achievement, a key teacher motivator (Louis et al., 1995; Marks & Louis, 1995; Newmann, Marks, & Gamoran, 1995; Newmann & Wehlage, 1995).

In sum, education research supports the more general theories on worker motivation as applied to schools. Clear, measurable goals enhance teacher motivation. Opportunities to collaborate enhance teacher motivation. Using collaboration to expand one's professional expertise, particularly toward an expanded set of instructional practices, enhances teacher motivation. Involvement in schoolwide decision making outside the classroom, particularly if focused on enhancing the curriculum and instructional program to produce high levels of student achievement, also

enhances teacher motivation. When all these processes work together, moreover, student achievement improves, which itself strongly enhances teacher motivation. Finally, the combination also produces enhanced teacher commitment not only to the goals of the school but also to the teaching profession itself.

Compensation Factors That Motivate Teachers

Compensation can influence teacher motivation and behavior. In this section, we discuss the research on salary levels and the potential of new approaches to compensation—specifically, competency-based pay and group performance incentives.

Salary Levels

Salary levels are important to teachers. Goodlad (1984) found that teachers did not enter the profession for the money, but rather for the intrinsic satisfaction of working with children. Yet, when they left the profession, teachers reported low pay as the second most important reason for leaving, following the lack of efficacy. The combination of discovering teaching both difficult and financially unrewarding discouraged longevity in the profession. In a review of the empirical research on salary and behavior, Ferris and Winkler (1986) found that higher beginning salary levels attracted more able individuals into teaching and that higher average salaries reduced teacher turnover rates. Similarly, Spuck (1974) found that extrinsic rewards were important in attracting and retaining teachers. Baugh and Stone (1982) provided evidence of widespread teacher movement from district to district in search of higher salaries. Nearly all recent surveys of teachers who leave the profession identify low salaries as the key factor (Harris & Associates, 1995).

Even though having a positive impact on student achievement appears to be the prime motivator of teachers, salaries also play an important role. Research shows that teacher behavior is strongly affected by salary levels, including the decision to enter the profession, the decision to stay in a school district (vs. moving to another district with higher salaries), and the decision to remain in or leave the teaching profession.

Competency-Based Pay

Competency-based pay is entering the structure of teacher compensation. From a conceptual and system-aligning perspective, such elements of teacher compensation make sense. If opportunities to engage in professional development motivate teachers and if the actual expansion of professional expertise motivates teachers, then a competency-based pay system that provides financial rewards to teachers who expand and deepen their professional practice would merely add an extrinsic reward to what already are intrinsic motivators and thus reinforce their strength.

Hart (1994) reported that high-promise early career teachers in the Hart and Murphy (1990) study described earlier wanted a compensation system that tied rewards to the core tasks of teaching, rather than a system that separated pay from what teachers actually did each day in the classroom. In fact, only the lowest-performing teachers believed they could make positive career progress under the single salary schedule. McLaughlin and Yee (1988) reported that an "investment-centered" environment that rewarded teachers for growth, risk taking, and change would provide the incentive for teachers to continue their own professional learning and keep them interested and involved in students' learning throughout their careers. Darling-Hammond (1996) suggested that skill- or competency-based pay for the advanced expertise that teachers developed in learner-centered schools also would make sense. These findings point to the potential of a competency-based pay model to effectively support teachers' professional growth and therefore to reinforce their intrinsic motivation as well.

Under a competency-based compensation system, indirect measures of teacher skills, such as years of experience and education units used in the single salary schedule, are replaced with more direct measures of teacher knowledge and skills (Conley, 1994; Firestone, 1994; Kelley & Odden, 1995). Teachers can be rewarded for developing expertise in three broad areas: (a) depth of knowledge in content, curriculum, and instruction; (b) breadth of skills in nonteaching functions, such as curriculum development and counseling; and (c) management skills necessary to work in site-based managed schools. As the Hart and Murphy (1990) study and the job enlargement literature show, teachers not only conduct a wide variety of tasks throughout the workday but also want their rewards tied to these core tasks. A competency-based pay system makes this direct link. As teachers grow professionally in the three skill areas, their level of pay increases to recognize their new level of expertise.

Competency-based teacher compensation provides opportunities for the education system to formally recognize, through salary increases, activities that other research demonstrates to be motivating to teachers—collaborating and engaging in professional development to enhance professional skills, particularly those related to curriculum and instruction (Firestone, 1994).

Group-Based Performance Awards

Through three eras of implementation—the 1920s, the 1960s, and the 1980s—individual merit pay plans for teachers have failed to improve schools or to motivate teachers to higher performance. The well-documented problems with merit pay include lack of fair performance evaluations, creation of competitive work environments, distrust between teachers and administrators, and unstable funding (Bacharach, Conley, & Shedd, 1990; Bacharach et al., 1984; Hatry et al., 1994; Heneman & Young, 1991; Johnson, 1986; Murnane & Cohen, 1986; Shedd & Bacharach, 1991).

However problematic *individual* merit pay plans have been, *group* or *collective* performance awards have the potential not only to overcome the problems associated with merit pay but also to motivate teachers to higher performance. The education system has only begun to experiment with these new versions of performance incentives. The new versions of incentive plans tend to award the entire faculty when schoolwide student achievement reaches or exceeds expected levels of improvement. Programs in Kentucky, South Carolina, and a dozen other states and districts share these features. An analysis conducted by Clotfelter and Ladd (1996) found that, when scores were evaluated against comparable school districts in Texas, the Dallas program had a positive impact on test results.

These and other similar group, schoolwide, performance awards in education need further analysis. Preliminary and anecdotal evidence suggests that they are far superior to the old and ineffective merit pay plans. They seem to be aligned with other intrinsic factors that motivate teachers, especially a focus on student achievement and success in improving student achievement (Firestone, 1994). Although some are still skeptical about the viability of any type of performance awards in schools (Cohen, 1996), the arguments in this and later chapters imply that group (school-based) performance awards are different from individual incentive programs and are worth trying.

Conclusions

The foremost teacher motivator is improved student achievement. Thus, an education system organized and structured to increase student achievement will also enhance teacher motivation. Within this type of system, several factors can individually and as a group improve teacher motivation. Clear education goals focused on student achievement are characteristic of successful schools and foster teacher motivation. Teacher involvement in schoolwide activities, including both the instructional program and the overall management of the school, is motivating. Teacher motivation is also positively affected by opportunities to engage in professional development, and enhanced professional expertise boosts motivation even further. In short, several intrinsic variables are positively connected to teacher motivation.

Salaries and compensation also are important. Overall salary levels matter to teachers; lower relative salaries are associated with a decline in the quality of people attracted to teaching, loss of teachers to higher-paying districts, and loss of teachers to other professions. Higher relative salaries have the opposite effect.

In terms of the structure of compensation, research is clear that individual merit and incentive pay programs do not work and, in fact, are detrimental. New ideas for teacher compensation being tried and researched in education, however, offer high promise and are addressed in subsequent chapters.

New compensation components should not be viewed as motivators by themselves, but rather as part of an overall set of education system strategies designed as a whole to advance teacher expertise and to educate students to high standards. The new pay structures—competitive salary levels, competency-based pay, and group performance awards—reinforce the larger systemic bundle of overall goals and motivational strategies.

Rewarding Individual Teachers for Developing Needed Competencies

5

Competency-based pay is useful in organizations, such as schools, for which the needed knowledge, skills, and competencies are sufficiently complex that it takes years of training and experience for their full development. It is also useful in schools and other organizations in which the needed competencies evolve over time, are unique, or must be tailored to the local context. In these cases, university preservice training programs only begin the process of teaching required competencies; ongoing training and continued skill acquisition are needed throughout a person's career.

In addition to providing extrinsic rewards for the continued development of skills and knowledge, competency-based pay reinforces the creation of an organizational or school culture that values employee growth and development (Lawler, 1995). Over time, competency-based pay also enables an organization to enhance overall capacity by investing in its people and thus expand its human capital. Some analysts consider human capital to be an organization's most important resource (Pfeffer, 1994). In service industries, such as schools, this is certainly the case, as demonstrated in previous chapters. Thus, competency pay in education would focus key organizational resources on enhancing the future productivity of the school through the continuous improvement of the capacities of the teachers who work within it.

Competency-Based Pay

The single salary schedule provides pay increases for years of experience, education units, and university degrees. These variables are indirect indicators of knowledge and skills; under this system, a teacher with more education units and more experience in the classroom is assumed to have developed a greater array and depth of professional expertise. Unfortunately, many of the credits used as a basis for salary increases are only loosely—if at all—connected to teaching responsibilities, to emerging notions of challenging subject matter instruction, or to site-based leadership and management skills. A skill- or competency-based pay system would supplement or replace these indirect indicators with more direct measures of teacher knowledge and skills. Teachers would be paid for what they know and can do.

Such a system could reward the development of three sets of knowledge and competencies. The first and most critical set is depth of expertise in the areas of content, curriculum, and instruction. A second set consists of those vital to important nondirect instructional functions such as curriculum development, professional development, guidance counseling, and parent outreach. A third set involves "management" competencies required of teachers in schools engaged in site-based management—running meetings, gaining consensus, developing and monitoring budgets, strategic planning, and program evaluation.

Classroom Instructional Competencies

The first set of competencies relates to teaching and learning. Instructional competencies reflect levels of expertise in a particular teaching area. For teachers, such broader and deeper skills reflect increasing competence at teaching itself or in the subject area taught. The current practice is to use education units, certificates, and degrees as indicators that the teacher has achieved knowledge and competency levels beyond those required for initial licensure. The knowledge and skills represented by these indicators are likely to be uneven in quality, general in nature, and probably not specific to school needs. Competency-based pay would require a more specific and focused assessment system for measuring depth of skills and knowledge in subject matter, curriculum, and instruction.

By linking curriculum and instructional competencies quite closely to the content knowledge and pedagogical skills required to teach ambitious

new curriculum frameworks to all students, states and districts could potentially enhance school performance. An important element of standards-based reform and of developing notions of teacher professionalism is the need to link teacher training and compensation to the knowledge and skills required by new curriculum standards (Darling-Hammond et al., 1995; National Board for Professional Teaching Standards [NBPTS], 1995; Smith & O'Day, 1991). Because both the Interstate New Teacher Assessment and Support Consortium (INTASC) project and National Board for Professional Teaching Standards (NBPTS) certification are linked to these developing curriculum standards, their assessment strategies could be used by districts and states to build the competency bridges from initial licensure to board certification. Board certification itself could constitute an advanced level of instructional competency. Rewarding development of enhanced instructional competencies throughout a teacher's career would provide an additional tool to continually improve teacher capacity in this important area.

The specific nature of instructional skills required would need to vary by education level: elementary, middle, and high school. Indeed, INTASC, PRAXIS (the project of the Educational Testing Service), and the NBPTS have different standards for teachers at these different education levels. Further, some form of advanced subject matter knowledge is appropriate for each level. Indeed, for certification, elementary teachers in Korea, for example, are required to have depth of knowledge and skills in one of seven identified content areas, and schools hire teachers to ensure a full mix of skills to ensure depth in all content areas. By adding advanced competencies for all level of schools, the education system could signal that in-depth knowledge of content areas such as mathematics and science is important for elementary as well as middle and secondary school teachers.

Competencies for Other Education Functional Tasks

The second set of competencies refers to education tasks that are distinct from classroom instructional skills. For instance, many "house" concepts in new schools require teachers to act as guidance counselors to students. Such a role, to be done properly, must be conducted by someone who has mastered a set of counseling skills in addition to teaching skills. A competency-based pay approach would encourage the acquisition of

such expertise by attaching a pay increment to a counseling competency. Such additional competencies have several possibilities: (a) content knowledge and pedagogical skills in a second subject area (especially for schools stressing multidisciplinary approaches or needing teachers qualified in more than one content area) and (b) expertise in professional development, curriculum development, instructional materials evaluation and assessment, assessment development, and skills related to the specific design a school might be implementing (e.g., a Comer development school, a nongraded primary school, a coalition school, a technology-oriented school such as the Co-NECT Design of the New American Schools).

Competencies in School Management and Leadership

The third set of competencies is related to the managerial and leadership expertise needed, particularly for schools functioning under site-based management. Budgeting, running meetings, operating in a team/collegial structure, evaluating programs, developing school improvement plans, and the like are all competencies needed by school faculty for local leadership and management to work effectively.

Again, specific competencies would be used in the pay structure only if they supported the organizational arrangements and core education purposes of the particular school. Some skills that are important in schools may best be considered as separate jobs and paid for as such, such as coaching and club advising, if they are extracurricular.

Summary

A competency-based pay system with all these elements can more directly relate compensation to the range of knowledge and expertise a teacher can develop and apply across the school. In new ways of organizing schools, work tasks often require expertise that would have spanned many jobs in the "old" way of organizing (e.g., Darling-Hammond, 1996). In this environment, teachers can be engaged in many tasks, including curriculum and staff development, counseling, and school management, in addition to the daily, core task of teaching a high-standards curriculum. Currently, however, teachers may lack the expertise to effectively work in these areas, and they generally do not earn extra salary when they do

develop such expertise. A competency-based pay system would allow the school to identify the wide range and depth of expertise it wants its teachers to develop and then to provide pay increments when those competencies have been attained and are used.

Competency-based pay plans must fit and reinforce the local school organizational and instructional arrangements. By providing for site-based management and local control and by focusing on results, standards-based reform will create schools that differ from one another in their specific organizational and instructional designs. Competency-based pay plans, therefore, must differ at least to some degree from school to school. Different schools will need to specify different sets of competencies to fit their instructional and organizational design. The specification of these competencies cannot be completely idiosyncratic, however. Some basic commonalities must be maintained across schools so that the system has some professional coherence and so that teachers have a reasonable ability to move among schools. A workable balance must be created between systemwide uniformity—state or district—and local site variation. The system could require competencies in core areas, tracking core curriculum standards; the core also could be aligned with and constitute a bridge between initial licensure under an INTASC standard and certification by the NBPTS. These common competencies would then constitute the skeleton upon which personnel in local schools could build customized competencies by defining and measuring additional skills.

Linkage to Career Development

Competency-based pay would encourage education careers formed by a continuous focus on knowledge and skill acquisition. By acquiring additional expertise, individuals can increase the number and kinds of roles they can perform in the organization. This flexibility and depth will enhance their value to the organization and thereby offer opportunities for salary growth not available in a job-based pay system. As employees acquire new skills and competencies and perform more effectively in traditional roles and extend to new roles, they will move through a career in the school. Each career move, with its accompanying acquisition of a new array of competencies and the opportunity to perform the tasks and roles, would bring with it increased stature and value to the organization, as well as a larger salary. Although we traditionally tend to think of careers as moving hierarchically up the organization, competency-based careers

are defined by the growth of competencies, not by the limits of a narrowly defined job. Employees advance by developing expertise in three directions or combinations thereof: depth of skills within a particular job, functional skills across the organization, and managerial skills (Mohrman et al., 1996).

A competency-based pay structure could nicely fit the developmental stages of a teacher's career (Conley & Odden, 1995). Teachers begin their teaching career with a focus on developing and "perfecting" a limited set of instructional and classroom management skills. Over time, they broaden and deepen this professional expertise and become more effective in teaching. The next step includes engagement in broader, schoolwide tasks, such as collegial efforts to create even greater curriculum and instructional expertise, as well as various school improvement activities. Over time, engagement in these broader roles can include managerial tasks as well (see also Huberman, 1995). As the professional expertise and contribution to school effectiveness expands over these career developmental stages, a competency pay structure could provide a financial reward as well, thus reinforcing the intrinsic satisfactions that also accrue (see Chapter 4). In short, a competency-based teacher salary structure could reinforce the natural career stages of most teachers, aligning the financial elements of a teacher's career with the expansion of his or her professional competence and schoolwide responsibilities.

Competency Pay Is Different From Individual Performance Pay

Competency-based pay should be clearly distinguished from individual performance-based pay. *Individual performance pay* has traditionally been used to describe systems that evaluate teachers against one another for a fixed pool of funds, often by using subjective measures of performance from annual classroom observations. The objective of individual performance pay is to identify the "best" teachers and to reward them with additional pay. In contrast, competency-based pay rewards teachers for developing and using knowledge and competencies described by external professional standards and identified as valued by the school—such as the ability to teach all students the mathematics in the National Council of Teachers of Mathematics (NCTM) standards (NCTM, 1991). Skill attainment is assessed relative to predetermined, clear-cut standards—mastery of the particular knowledge or competency. Competency-based pay does

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not create competition among teachers, but rather signals the types of competencies the school wants its faculty to acquire. Competency-based pay systems, thus, focus individual teacher skill development on the knowledge and expertise necessary for the school to accomplish its goals.

Examples of Competency Pay Structures

A competency-based salary component could be added to the current salary schedule, replacing either the education or the experience component of the schedule, or both components. For example, salary increases could be tied to professional licensure or certification being developed by INTASC, the PRAXIS system from the Educational Testing Service, or the NBPTS. Teachers could start their teaching careers with a provisional license (a temporary permit to enter the classroom) at a beginning salary level and earn significant increases in pay when they receive a professional teaching license and certification from the NBPTS (Conley & Odden, 1995). A local, state, or national skills assessment system developed by the teaching profession could identify and assess additional milestones in skill, knowledge, and competency development between professional licensure and board certification, with locally determined salary increases linked to this assessment. Four alternative models for using competencies to pay teachers are presented below.

Adding Competency Pay to the Current Single Salary Schedule

Model 1 retains the current single salary schedule and adds some important competency pay elements to it. All elements in the model should be viewed as suggestions; the general framework for the model should be emphasized. The model suggests two categories of competencies: (a) those that would be common across a district and (b) those that would be specific to a school. The common or professional competencies would be greater knowledge of the subject matter taught, licensure in a second area, licensure in a shortage area (shortage to be defined by the district), and national board certification. The locally assessed competencies would be determined by school-specific needs.

The major rationales for this model are threefold: (a) It signals that deep knowledge of subject matter content is important; (b) it supports

MODEL 1 Current Step and Column Salary Schedule With Competency-Based Pay Additions (professionally and locally assessed)

Experience	*Column 1 BA*	*Column 2 BA +*	*Column 3 MA*	*Column 4 MA +*	*Skill-Based Pay Increments (professionally assessed)*	*Skill-Based Pay Increments (locally assessed)*
Step 1					Passing a content test in area of license	Nongraded primary school
Step 2					Licensure in a second area	Cooperative learning
Step 3					Licensure in a shortage area	Reading recovery
Step 4					Certification from NBPTS	Computer skills
Step 5						
Step 6						
Step 7						
Step 8						
Step *n*						

NOTE: Model 1 maintains the current single salary schedule structure with annual increments for years of experience (steps) and additional education units (columns). It adds to this structure salary increments for skills demonstrated through professional assessment procedures and for skills identified and assessed locally by the school or district. Local districts could determine the degree to which education units (columns) would need to be related to areas of licensure and local education needs. Currently, some districts and states make these requirements; others do not. Specific dollar amounts would be identified for each cell in this model.

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advanced recognition—certification—by the NBPTS; and (c) the infrastructure is in place to implement it fairly quickly. Because scholars and teacher leaders suggest that teachers must learn subject matter content more deeply, particularly for the emerging curriculum content standards, this model provides a salary increase if a teacher passes an advanced subject matter examination. All a state or district would need to implement this competency element is an appropriate subject matter test. The model also provides a salary increase for licensure in a second subject or in a shortage area. The former reinforces the increasing number of curriculum programs that are multidisciplinary or thematic in nature and also helps ensure that teachers assigned outside their primary licensure area have at least the beginning set of competencies in the second subject (Gardner & Boix-Mansilla, 1994). By providing a salary increment for a shortage area, the schedule also provides an incentive for teachers to learn the beginning set of skills in areas that currently are short of qualified teachers; definitions of shortage areas would need to be set either by districts or states. Finally, the schedule formally provides salary increments for developing an advanced set of professional competencies as demonstrated by earning certification from the NBPTS.

The local skills are suggestive; they are included to reinforce the notion that each school site may need a particular set of competencies, depending on the vision of high performance it decides to implement. The local skills identified also include specific second-language skills because schools increasingly are populated by students for whom English is not the primary language.

Another attractive feature of this model is that the competency areas could be a rationale for additional education funding from either a local district or a state. A new education enhancement fund could be created to provide salary incentives for teachers to develop these needed competencies. But the financial rewards would be given only to teachers who had developed new competencies deemed needed and important by the state, district, or site. This provision could start a process of linking pay directly to needed expertise.

Requiring Competence to Earn Annual Salary Increments

Model 2 is also an example of a competency-based salary model that could be implemented quickly. It is now being tried in a number of states

and districts around the world. This model has several important features. The first important feature is that it replaces the automatic annual increments for years of experience with annual increments that are contingent on a successful performance review, either annually or every 2 or 3 years. This stipulation makes pay increases a reward for some type of accomplishment, such as developing teaching practice to a set of increasingly rigorous professional standards, rather than automatic.

A key element in making this stipulation function as intended is the nature of the performance review. Too often, districts or states implementing this plan assign the review function to principals but provide neither adequate training for a substantive review nor adequately describe the standards of teaching knowledge and skills that teachers must meet. This was a shortcoming of the first career teaching program implemented beginning in 1992 in Victoria, Australia, and of a similar program in Douglas County, Colorado. In Douglas County, however, the program encouraged teachers and administrators to take teacher evaluation more seriously and made a concerted effort to develop and set teaching standards and to train principals in effective assessment techniques. Principal review of teaching practice to standards is also part of a revised 1996 teacher career structure in Victoria, Australia, but again, good implementation is impeded by lack of rich descriptions of teaching practice to standards and principal training to conduct such a complex review.

The career teaching programs in both Cincinnati, Ohio, and Rochester, New York, however, have avoided both of these shortcomings and are examples of how local performance reviews to solid professional standards can be a contribution to high-quality instruction. The ideal approach is to write a set of local standards, based on the written teaching standards developed by both INTASC and the NBPTS, that form a series of steps from beginning to more advanced practice and that link performance reviews and skill assessments to these increasingly challenging standards. This procedure would help provide specificity to the local performance review and link it to broader expectations for practice created by the profession. By making any type of annual salary increment contingent on successfully completing such a performance review, the system in Model 2 connotes that monetary rewards should appropriately be connected to the level of individual practice vis-à-vis professionwide standards.

The second important feature of Model 2 is the addition of competencies required either by a local district or by a particular site, as described

MODEL 2 Performance Reviews for Annual Increments Combined With Skill-Based Pay Elements

Annual Performance Reviews	*Additional Local Skills/Competencies*	
Performance Review 1	Skill Area A	
Performance Review 2	Skill Area B	*Certification From National Board for Professional Teaching Standards:* 5% to 10% salary addition over base salary from both Columns 1 and 2 but only after performance review at some step, (e.g., Step 4).
Performance Review 3	Skill Area C	
Performance Review 4	Skill Area D	
Performance Review 5	Skill Area E	
Performance Review 6	Skill Area F	
Performance Review 7		
Performance Review 8		
Performance Review 9		
Performance Review 10		

NOTE: Model 2 modifies the current single salary schedule by providing annual salary increments (steps) only for those teachers who have successfully passed a performance review, ideally conducted through a professional peer review process. Teachers would also receive pay increments for the demonstration of skills and competencies identified by the local school or district as skills needed to achieve student achievement goals. These specified skills could be learned through a variety of ways (e.g., course work, staff development, individual research, professional networking opportunities) and would replace the education units in the traditional single salary schedule. In addition, teachers who achieved certification from the NBPTS would receive a 5% to 10% pay increase. Specific dollar amounts would need to be identified for each cell in this model.

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in Model 1. The third important feature is that this model eliminates the education units and degrees portion of the current single salary schedule and replaces it with lanes for competencies; essentially, the model replaces the indirect measures that education credits now provide with more direct measures of professionally and locally defined competencies. Education courses still could help teachers acquire new competencies, however. The fourth important feature is that this model includes salary recognition for teachers who earn national board certification. The model provides a significant salary increase as a percentage of base salary to any teacher earning board certification. Although some districts now provide some type of salary reward for board certification, many do so as a fixed dollar amount and often as a one-time bonus. The idea in Model 2 is that board certification represents advanced, accomplished professional practice that should be rewarded, each year after it is earned, by a 5% to 10% increase in base salary.

Taking Advanced Professional Practice Seriously

Model 3 moves toward a more dramatic version of competency-based pay. This model *replaces* the current salary schedule with a competency-based salary structure; it also includes, though conditionally, increments for years of experience.

The major thrust of this model is the structure of Lane 1. Teachers begin as probationary teachers or interns, with a salary below the professional beginning salary, until they earn their full professional license. Then, they enter at the beginning salary. They earn either annual or biennial salary increases, however, only by advancing their professional expertise and competence toward board certification. They receive no salary increase for years of experience until *after* they earn board certification. The concept behind this structure is that the education system—district or state—would want to retain and reward with an automatic annual salary increment only teachers with advanced, accomplished expertise. Rather than assume that additional years of experience produce a more accomplished teacher, this schedule requires demonstration of advanced competence both through early competency assessments and by passing the national board's rigorous assessment to high professional standards.

Model 3 also provides salary increments for teachers who earn a license in a second area, as well as for enhancing their competencies in that second area to some degree beyond initial licensure. Districts using this model

MODEL 3 A Skill-Based Teacher Compensation Schedule for Board Certification and Retention

Primary Content Specialty	*Second Content Specialty*
Entry level with a full teacher license	Extra amount for a full second license
Advanced 1	Advanced 1
Advanced 2 (Tenure?)	Advanced 2
Advanced 3	
Advanced 4	
Advanced 5	
National board certification	
Years of experience after board certification	
Step 1	
Step 2	
Step 3	
Step 4	
Step 5	
Step n	

NOTE: Model 3 completely replaces the current single salary schedule with a competency compensation schedule. Under this plan, teachers would receive pay increments for the demonstration of skills and competencies identified by the teaching profession as reflective of what excellent teachers should know and be able to do at various stages in their careers. Only after being certified by the NBPTS would teachers begin receiving annual increments for years of experience beyond board certification. This would provide an incentive for outstanding teachers to remain in the teaching profession. Teachers could also receive additional pay for the demonstration of skills in a second content area. Specific dollar amounts would need to be identified for each cell in this model.

could link tenure to an assessment of some level of practice beyond that required for initial licensure, Level 2 in the proposed model. Thus, tenure is something more than only a conferral of job security—an indication of enhanced knowledge and competence. This model takes very seriously

the need for today's teachers to have a strong repertoire of core subject matter knowledge and related instructional skills, and signals that professional competence is the key variable on which to base salary.

Providing a Complete Competency-Based Teacher Salary Schedule

Model 4 moves another step and represents a structure for a full-fledged competency-based teacher salary structure. The model does not include salary increments for either years of experience or education units or degrees; it replaces them with salary increments only for competencies.

Lane 1 represents competencies for the primary area of licensure. Salary increments are earned for deepening and broadening professional expertise in that primary area. Again, tenure could be linked to an assessment of advanced professional expertise. Districts could vary the number of levels between initial licensure and board certification, but one to five levels appears feasible.

The model also includes salary increments for licensure in a second area, and additional salary increments for advanced expertise in the second teaching area but not all the way to board certification. The concept behind Lane 2 is that a teacher fully prepared to teach in two subject areas is more valuable to a school than a teacher licensed in only one subject area. Schools always seem to be short of teachers in various subjects. By providing a salary increment for teachers who earn licensure in a second area, a school is improving the probability that it could always assign teachers to classes in which they are fully prepared. This probability will thus reduce, minimize, and perhaps even eliminate assigning faculty to teach classes in subjects for which they are not fully prepared.

Model 4 also provides for specific site expertise. The competencies listed are expertise in a second language and in a tutoring model for reading. These are just examples. Districts and schools must identify the specific additional competencies they need, beyond the "core" competencies represented by Lanes 1 and 2.

Lanes 4 and 5 list specific competencies that teachers need in restructured and site-based managed schools—for example, counseling, professional development, curriculum development, leading teams, community outreach, program evaluation, and budgeting. Again, this list is suggestive but identifies several functional and managerial competencies that teachers in such schools could be reasonably expected to develop in order to engage professionally in these tasks.

MODEL 4 A Comprehensive Competency-Based Teacher Compensation Schedule, High School Version

First Content Specialty	*Second Content Specialty*	*School Site Expertise (examples)*	*Breadth Skills*	*Management Skills*
Entry		Spanish fluency	Counseling	Decision-making team leader
Provisional license	Provisional license	Hmong fluency	Professional development	School operations
Professional license	Professional license	Korean fluency	Curriculum development	Budgeting
Advanced 1	Advanced 1	Reading recovery	School-to-work transition	Accounting and financial management
Advanced 2 tenure	Advanced 2 tenure		Computers and technology	Marketing
Advanced 3 recertification			Community outreach	Program evaluation
Advanced 4			Family liaison	
Advanced 5				
National board certification				

NOTE: Model 4 builds on Model 3 but adds opportunities for pay increments for the demonstration of skills and competencies identified by the school or district as important to achieve local education goals. This model provides for tailoring of teacher skill development to needs of the local school context, including specific depth and breadth skills geared to the local student population and management skills that may be required for local management of school operations. Specific dollar amounts would need to be identified for each cell in this model.

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Clearly, other models of competency pay could be developed, either to add to the current salary structure or to replace it. But, the above discussion provides several ideas of both what paying for competencies means and how such a new idea could be used to reshape the teacher salary structure.

Choosing Among Models

We present no clear rationales for choosing among the above models, and as stated, additional models or variations of the above models could be created. Models 1 and 2 can more quickly be adopted; they are more closely linked to the current single salary structure and add elements of competency pay to it. Models 3 and 4 are more aligned with the high standards/high performance school discussed in Chapter 2 and are more appropriate for a school system or state creating these kinds of schools, places with a standards-based education reform including substantial site-based school management.

Other Issues in Designing Competency-Based Pay Structures

In this section, we briefly review several other design issues involved in creating a competency-based teacher salary structure: measuring, assessing, and reviewing the competencies; pay systems for administrators; and various transition issues (see also Mohrman et al., 1996).

Measuring, Assessing, and Reviewing Competencies

Numerous strategies could be used to design valid and reliable structures for measuring, assessing, and reviewing competencies. In Chapter 1, we described the goals of both INTASC and the PRAXIS project of the Educational Testing Service to set standards and develop an assessment system for licensing teachers on the basis of a beginning set of professional competencies; and of the NBPTS to set standards and develop an assessment system for board certification for advanced, accomplished practice of teachers to high and rigorous professional standards. Whatever additional assessment systems emerge, these systems already largely in place

can serve as anchors for a system of measurement and assessment for competency-based compensation.

Because several of the models discussed in the above section suggest salary increments for levels of professional expertise between beginning and advanced status, the logical questions are: How should the assessment structure for those interim steps be constructed? and Who should develop it? The process should include writing standards for levels of practice between the written standards that INTASC and PRAXIS have for beginning practice and those that the NBPTS has for advanced practice. The precise number of levels between could vary from one to five; only time and local decision making can tell how many steps might be appropriate, and the decision might even vary by state and district.

Who should develop these standards and levels of professional practice, as well as the assessment system for determining the level of practice reflected by any individual teacher, is neither clear nor set at this time. It would be best if the teaching profession took a major role in this developmental activity. An argument could be made that this is an appropriate task for the NBPTS. But the NBPTS appropriately is focused on developing its full coterie of 30 to 35 certification areas and on creating a self-sustaining business of board certification. Once this goal is accomplished, it could be appropriate for the board to expand into this other area and to provide a national system for setting standards of professional practice between beginning and advanced levels and for assessing teaching practice to those standards.

Clearly, the two national teacher unions—the American Federation of Teachers and the National Education Association—could also take the lead for this task. It would be best for the unions to engage in this task together so that one national set of teaching standards and aligned assessment structure is created. Responsibility for setting professionwide standards would reinforce the professional role of the unions. Moreover, it would provide the nation with a high-quality mechanism with which to alter the structure of teacher compensation toward competencies instead of education units or years of experience. Further, a major agenda item for the two unions and their locals is and will remain teacher compensation, thus making the development instruments for implementing a new approach to compensation well within the strategic interests of each union.

To ensure that the set of teaching standards and accompanying system were truly professional in nature, the unions would be wise to create an independent board of teachers, much along the lines of the NBPTS, to

create both the standards and the assessment system. It would also be prudent for the unions to formally link the standards and assessments to INTASC, PRAXIS, and the national board, thus aligning the interim measurement instruments with other professional instruments that already exist. These strategies would help ensure the surface professional validity of the resultant new system of measurement of practice.

In many other professions that people enter soon after earning a bachelor's degree, a national system exists for identifying and assessing practice beyond that required for initially beginning practice (Kelley & Taylor, 1995). Actuaries and financial analysts are good examples. Both professions allow people to begin practicing these professions after earning only a bachelor's degree. Both professions also have a *national* system of competencies and assessments, with several levels, that are required for more advanced and responsible practice. Moreover, people who pass these assessments tend to earn salary increases for each new level mastered. Thus, there is a precedent among at least some other professions—namely, those in which people enter practice before any graduate training—for a national system of measuring expertise as it develops toward that needed for advanced practice.

An assessment system for a competency-based pay structure could also be developed on a state-by-state basis. Although still aligned with INTASC and the NBPTS, such a system could be even more strongly linked to state-specific curriculum standards and the expertise needed to teach them. Because a statewide system would be in the strategic interest of both teacher unions and school boards, it would be appropriate for those two organizations—which negotiate salary structures—to finance development of a system for creating written standards of teaching practice and an assessment system measuring the practice of each teacher. Again, we suggest that these organizations constitute independent boards, with a majority of teachers, to actually lead creation of such instruments. This composition not only protects the process from undue influence of either the management (board) or the union perspective but also imputes a professional air to the process.

Such a system of measuring teaching practice could be used differently by each local district as it negotiates the precise structure of a competency-based pay plan. But, the state system would ensure that the core elements of such a new structure would provide valid and reliable assessments of practice to high and rigorous professional standards.

An argument can also be made that each district should develop its own assessment system. Although this strategy has the advantage of

tailoring a measurement system to the exact needs of a local district, it also runs the risk of falling short of the rigor and validity needed for such a complex assessment structure. Districts should be encouraged, however, to develop evaluation systems that are both formative (designed to help teachers develop and improve) and summative (oriented toward personnel or salary decisions). Most efforts to develop competency-based pay in other organizations use assessment strategies developed by each individual company (Ledford, 1995a, 1995b), so if school districts followed this approach, they would be well within the bounds of current common practice. Unions could also negotiate the broad outlines of a districtwide competency-based salary structure, identifying which competencies would be common across all schools, the latitude each school would have to identify competencies unique to the site, and the pay ranges for the district and site elements (Kerchner et al., 1997; Lawler, 1992).

Because the process for developing such a system would include creating an amalgam of INTASC and NBPTS standards and assessments, the process would engage local educators—administrators and teachers—in discussing high-quality teaching practice, developing standards for various levels of practice, and creating assessment instruments to measure the practice of each teacher and its changes over time. This process could provide strong education benefits to a district and the professionals within it. Again, we suggest that the board and the union create a quasi-independent team to develop both the standards and the assessment structure and to require that it be linked to national and state curriculum standards and other structures describing and measuring teaching practice.

Each set of competencies will probably have a combination of formal, standardized ways of measuring accomplishment, such as those just discussed, and site-determined and measured competencies. Local standards must also be systematically identified, but there will always be room for judgment. There may be pressures to certify a colleague's competency because of the monetary implications for him or her. A countervailing pressure must make it in the self-interest of local professionals to be as accurate as they can in the certification process. Partially, this pressure can be controlled by state or district guidelines and regulations that delimit the standards that can be used, but ultimately, local professionals must see it in their own interests and the interests of their school to make certification of skills as accurate as possible. If people believe that their own interests are tied to the performance of their team and school as a whole and if they believe that the competencies of others are important to such performance, then they will make sure their colleagues have the

necessary skills. Pay for school performance (Chapter 7) is proposed as an element of compensation precisely to make the school's performance, which is in the best interest of students and taxpayers, in the best interest of its teachers as well.

Because no competency can be considered static and because people can lose skills with inactivity, periodic reassessment of competency areas must be conducted. As professionals, teachers are expected to update their skills and competencies over time. If a person is determined to have lost skills from any competency area, then he or she can be placed on probation for a reasonable period of time to reacquire the skills before a second reassessment. The salary increment for the specific competency could also be reduced by a small amount (20%) during this probationary period.

Pay Systems for Administrators

Although the proposed competency-based pay system focuses on teachers, many of the notions and specific competencies could apply to principals and other site administrators as well. Particular competencies would depend on the management roles that emerged in restructured schools. For example, a new set of competencies could relate to the broader policy environment of education within a state and to the changing demographic and employment context to which the school must adapt.

If, on the one hand, the long-term vision of standards-based reform, together with school-site management, positions schools in more direct relationships with the state rather than the district (e.g., under a charter school or state-to-school funding program), a set of skills focusing on these connections would be appropriate. If, on the other hand, the vision views the principal as a unit manager in a local system, now called a district, principals would need competencies pertaining to functioning as a leader with more systemwide/district responsibilities.

Competency-based pay is just emerging as a compensation strategy for administrators and managers in the private sector (Ledford, 1991, 1995a, 1995b; Zingheim & Schuster, 1995a); although a sound development, few companies have applied this new notion of compensation to organizational or system leaders. Polaroid is one company that has begun to plow this new field. Thus, the knowledge base for how to extend competency-based pay to administrators is somewhat limited but is rapidly developing. Nevertheless, the above appear to be reasonable ways in which a state or

district could incorporate administrators at the school site into such a new compensation structure.

Pricing Competencies

The dollar values of competencies will vary. Some are more important and more difficult to achieve than others. In some cases, some competencies more than others may affect the performance of the school as measured by student achievement. The salary increments associated with the acquisition of competencies should generally correlate with their value to the school. In this sense, the competency-based pay system could become an incentive for people to follow careers that match the skills needed for performance of the school. We guess that core subject matter knowledge and instructional competencies would be among the highest priced because they are the core competencies for educating children. The exact prices, however, would be determined through the negotiating process.

Educators should have the opportunity to significantly increase their salaries. At minimum, they should be able, through skill block progression, to match the potential salary growth they currently can expect; this probably means the ability to triple their salaries through skill progression. We suggest a structure that allows for more than doubling entry salaries, particularly in restructured schools in which teachers engage in managerial as well as instructional tasks.

Starting Salaries

Starting pay refers to the salary a teacher would be paid according to a pay system whose primary logic is one of competency-based progression. Four issues are involved:

1. What will the entry level pay be for an inexperienced (licensed novice) teacher?
2. What system will be used for allowing an experienced educator to enter the system at other than entry-level pay?
3. What, if any, attributes, other than possession of competencies, warrant adjustment to starting pay (with the knowledge that adjustments will be reflected throughout the tenure of the educator)?

4. How is the pay structure adjusted up (or down) as appropriate through time?

It is assumed that state teacher licensing will also become based on the prospective teacher's exhibition of competencies and knowledge, not just on the possession of a degree, such as through the INTASC or PRAXIS system or a similar system (see also Mohrman et al., 1996).

Entry-Level Pay

The attraction and retention of teachers who can thrive in the increased demands of school reforms require that teacher pay be market competitive (Darling-Hammond, 1994; Odden & Conley, 1992). As stated in Chapter 3, the entry-level pay for a licensed teacher with a bachelor's degree should be pegged at entry-level salaries for other workers requiring bachelor's degrees so that education can attract highly competent college graduates. The premise is that the competency-based progression will enable newly hired, high-achieving teachers to move, within their first 5 years of teaching, well into the top half of distribution of salaries for college graduates with equivalent years of work experience.

Provision must also be made for teachers who enter teaching from nontraditional backgrounds and who may lack teaching credentials. A special provisional status can be created for these individuals, based on substitutes for the elements of the entry-level skill blocks they possess or do not possess, such as a bachelor's degree without a certificate, substantial completion of course work pursuant to a credential, and other work experience. Entry-level salary will be lower than that for the entry-level licensed teacher, with the actual salary dependent on the actual qualifications of the provisional teacher. The teacher entering through a nontraditional route might be given 2 years to attain a credential, at which time the entry-level pay for the first skill block will be attained, along with any other skill blocks the provisional teacher has been able to demonstrate.

Experience Adjustments to Starting Pay

New teachers to a school may be given credit for experience if it qualifies them to enter the competency-based structure at a location other than its starting point. Because years of experience as a teacher do not help teachers develop competencies, they should not be assumed to be indica-

tors of attainment of skills and capabilities. Rather, new teachers to a school should have to demonstrate competency on the job. A school may not be able to attract experienced teachers with valuable competencies, however, if the teachers must start at the lowest competency level.

Thus, schools could ascertain whether a new teacher demonstrates capability in all or most of the elements of a competency area and give credit in the form of a provisional salary for those competencies. The provisional salary would stay with the teacher for the first year of employment, during which time certification would be required by on-the-job demonstration of the complete set of competencies for which credit was given. If, at the end of the first year, such demonstration had not been fulfilled, the salary of the teacher would be adjusted downward, and the teacher would have the same opportunities as other teachers in the school to develop competencies over time.

Demonstration of competencies is an important regulator of teachers moving from school to school. On the one hand, it makes the practice possible, but on the other, it also makes the process of transfer somewhat formidable. This is not necessarily a disadvantage; team-based organizations rely on continuity, and thus it is important for people to have an incentive to remain with a school and for new teachers to develop the competencies needed for that school.

Other Adjustments to Base Pay

Qualifications other than the competencies and skills delineated may warrant adjustments to entry pay. Adjustments to entry pay should be made within the logic of the competency-based pay system. For example, advanced subject matter or education degrees should be acknowledged only to the extent that they indicate the competencies included in pay structure. A subject matter MA or Ph.D. might indicate potential depth or breadth in content knowledge. An entry-level teacher with such a degree could be given partial and provisional credit toward the accomplishment of a subject matter competency, with 1 year to demonstrate on-the-job attainment of the entire set of competencies.

Adjustments to the Entire Salary Structure

Adjustments should be based on periodic (perhaps biannual) movements in the wage market for college graduates in a state. Although some attention should be given to cost of living, it is presumed that the key

factor in retention of employees is equity compared to the market and that cost of living will be reflected in the market movement. Also reflected in market movement will be the general prosperity of a particular state or local labor market, a factor that will directly determine how much money is available to the public schools.

Counseling Individuals to Develop Competencies

Mechanisms must be established that ensure a fit between the competency mix needed by the school and the competency repertoires sought by its teachers. For example, each teacher might need to negotiate with, say, a school-level competency acquisition steering committee. The teacher would specify his or her personal career desires, and the steering committee would specify the competency mix needed and desired for optimal performance by the school. In this way, teachers could plan their careers interactively with their colleagues, and the school's faculty as a whole could plan and have some control over the competency mix available so that organizational and instructional designs could be carried out. Competency areas should be designed so that their acquisition represents a significant accomplishment.

Because competencies serve both personal and organizational purposes, the cost of acquiring them might be shared by teacher and school. Currently, many teachers bear the cost of additional education to move to different lanes of salary schedules based on education units. Many competency areas require considerable schooling or deeper knowledge of a subject, and the competencies might need to be tailored to the local school context. For instance, counseling may require considerable knowledge about community resources and the skills to deal with them. These skills and knowledge are best acquired by cross-training and experience in the school setting. Because such competencies are directly related to the needs of the school, a strong argument can be made for having the school bear the cost of their acquisition. (In the private sector, most training is supported and paid for by the organization.)

At the same time, not all competencies require extensive training. Districts and unions could develop training guides for some focused set of competencies or offer training sessions in, for example, new computer skills. Other competencies may be obtained through workshops or by observing and talking with more experienced/expert teachers, particularly board-certified teachers. Further, all these competency development strategies could be focused on successfully undergoing the board-

certification process. All approaches, though, would require district resources, such as released time, perhaps lighter teaching loads at times, opportunities for teaming and mentoring, and funding to engage in formal training opportunities.

Conclusion

The numerous districts and states that pay teachers a bonus or salary increment for earning certification from the NBPTS have implemented a competency-based pay element in a straightforward manner. These examples show that the notion of competency pay has some merit in education, and perhaps districts will more aggressively add competency pay elements in the future as they engage in what we expect will become a fourth round of teacher compensation change.

Making Part of Compensation Contingent on Teacher Activities

6

In the previous chapter, we described ways in which compensation could be used to support the development of teacher competencies and to improve the capacity of teachers and schools to perform to high levels. In this chapter, we consider a second approach to compensation: the use of compensation to reinforce desirable teacher activities or behaviors. This approach focuses on reinforcing education processes that support promising practice.

Unlike competency pay and group-based performance awards (the subject of Chapter 7), the compensation literature has paid relatively less attention to rewarding the development of effective organizational processes. Here, we refer to this type of compensation as *contingency pay* to reflect the notion of a pay element that provides incentives or rewards contingent on employee activities.

The use of contingency pay should be reserved for a few select practices or processes that a school district considers to be core to teaching students to high standards. Further, the practices or processes identified should lead both to improved organizational and individual capacity and to greater results. A contingency pay element in the compensation structure would elevate the selected practices or processes to greater attention and thereby signal that the district views such behaviors as critical to its

high-performance strategy—so critical, that they are included as an element of pay.

Contingency pay is a relatively new concept. Although some old forms of merit pay in education had the character of "more pay for more work," contingency pay should be conceptualized and constructed differently. For a contingency pay element, a district would identify one, two, or perhaps three critical/core activities in which all or nearly all individuals should engage and, by including them in the compensation structure, elevate them to priority levels.

Activities for Contingency Pay

Selecting activities to include in a contingency pay element is probably the most important step in developing contingency-based pay elements. We discuss three major activities; states and districts could select others to link to other core aspects of their education improvement strategies.

Contingency Pay for Professional Development

Organizations seeking to produce much higher levels of results usually need to restructure how work is conducted and managed. As part of this restructuring process, most people within the organization are thrust into new tasks that require new competencies. We argued in Chapters 1 and 2 that the standards-based reform movement in education reflects this reality. Thus, a contingency pay element could be linked to participation in ongoing professional development. This idea is being adapted from a plan used in the private sector.

The Saturn automobile plant in Spring Hill, Tennessee, uses this type of contingency pay, which it terms "pay at risk." Under this plan, a portion of base pay is placed "at risk" until certain behavioral targets are met. At Saturn, 5% of annual pay is contingent on all workers spending at least 5% of the work year (about 92 hours) in ongoing training that is provided by the plant. Another 5% is contingent on the plant meeting certain quality and production targets for its cars (Geber, 1992).

This pay element is appropriate for Saturn because people and their skills constitute the plant's primary strategy for implementing its new way for making automobiles. At Saturn, all work is conducted through self-managed teams of between 15 and 20 people. In all teams, individuals are

responsible for a multiplicity of tasks—some that pertain just to the team, and some that pertain to activities across teams, such as quality control and continuous process improvement. To be productive, each team member must have a range of skills and competencies, including team skills, self-management skills, and technical skills. To ensure that all workers develop these skills—and new skills as requirements change over time—the Saturn plant created an elaborate training program.

For the training program to work—to develop the needed skills and knowledge among the more than 10,000 people in the plant—the workers must engage in the training activities. This requires both commitment by the Saturn plant to provide the training opportunities (time and trainers) and commitment by the workers to take the training and to learn the needed skills.

The contingency pay plan reflects this value and core strategy. Five percent of everyone's base pay—including the top officers—is held back on the condition that everyone engage in at least 92 hours of annual training. Further, this pay element is structured with both individual and group subelements. To be eligible for full pay, a person must engage in the 92 hours of training. If only 90% of workers take that level of training, however, then all eligible workers only receive 90% of the 5% of pay held back!

The idea of using a similar strategy to commit teachers, schools, and school systems to an ongoing training process could have appeal in education. It is no secret that substantial ongoing training is critical to accomplishing the ambitious goals of today's standards-based education reform. Thus, a contingency-based pay element could be created that linked a portion of pay to participation in ongoing training. For example, a percentage of teachers' base pay could be contingent on each teacher engaging in a specified amount of professional development each year, such as 100 hours. The district or school would have to provide professional development opportunities, and teachers would have to participate. Such a program would give the teachers a strong incentive to participate. Further, when combined with competency pay, this strategy would have an even stronger incentive to it: Teachers would have a portion of their salary conditioned on engaging in ongoing training, and after they actually developed new competencies, a salary increase would follow. For maximum system results, the training would have to focus primarily on developing the competencies delineated in a competency-based pay structure. Careful thought would have to go into the design and implementation of professional development activities to be sure they were effective

and supported the student learning goals of the school and district (Corcoran, 1995; Darling-Hammond, 1993; Darling-Hammond & McLaughlin, 1995). One guidepost is to target those programs on developing capacities needed to earn NBPTS certification.

Contingency Pay and Quality

The Saturn plant also planned to hold back 5% of pay contingent on the plant producing a certain number of cars that met specified quality benchmarks. Admittedly, Saturn has faced difficulties in implementing this element of pay; meeting quantitative production targets has been viewed as the result of so many factors that management and workers have had difficulty agreeing on the number to use. The fact is that the production number piece of this element of pay in the Saturn pay plan is not applicable to education.

The quality element, however, could be very applicable to education. In fact, the quality concept could be transferred in many ways to education. One way is to require a school's faculty to collaboratively produce a performance report, such as the *School Quality Review* in New York State or the *Program Quality Review* required in California's School Improvement Program. The report would provide a vehicle for faculty to engage in a reflective practice exercise, in which each year they assess the types of school achievement produced against their curriculum and instruction strategic plan and modify the plan as it relates to achievement results they, together with the district (or state), set for the next year.

Other states and districts have similar vehicles that could use such a plan. For example, many states and local districts have created school-site decision-making councils. Each year, these councils create a school improvement plan for the subsequent year. A faculty-developed instructional program quality review plan could provide significant and important input into the overall plan the council would adopt.

Such a faculty activity would be important enough to include as an element of compensation because it provides another opportunity to highlight the importance of school improvement and to focus schools on results. The quality review activity would begin with end-of-year student achievement results. These data would be assessed relative to improvement benchmarks set for that year and in the light of the instructional strategies deployed to meet the benchmarks. Areas of strength and weaknesses would be identified. Then, the plan would outline the instructional strategies to meet the improvement targets the site, together with the

district and perhaps even state, set for the next year. The entire activity would be driven by key system results—student achievement—and the key elements under the control of teachers—the curriculum and instruction program.

Contingency Pay for Individual Teacher Projects

The above two examples of group-based contingency pay would be appropriate for all professionals in a school. Arguments could also be made for individual-oriented contingency pay. A district or school might want to reward individual teachers for undertaking processes that would enhance their overall teaching effectiveness, such as reflective teaching practice (Darling-Hammond et al., 1995; Shulman, 1987). For example, teachers could select special projects (e.g., action plans; Conley & Odden, 1995) and/or develop portfolios or journals documenting reflective practices that link "research-based knowledge of learning, development, and curriculum, or pedagogical content knowledge" to individual student needs (Darling-Hammond et al., 1995, p. 31). District staff developers or peer/mentor teachers could develop a process that teachers could follow throughout the school year to strengthen their abilities to reflect and revise teaching practices according to pedagogical content knowledge, local context, and individual student learning needs. The outstanding-teacher program in Douglas County, Colorado, discussed further below, is one example. As another example, a district could have teachers conduct action research on a new instructional approach within the district, study programs tried in other districts, or make other types of exploratory overtures.

In short, several such activities could pertain to a subset of teachers willing and able to engage in additional activities deemed important for the district's core improvement activities. Although we suggest that priority for contingency pay be given to the first two group-based activities targeted to professional development and quality review plans, the above ideas for a smaller number of teachers might also be appropriate.

Payout for Contingency Pay

Pay for a contingency compensation element could be provided in either of two ways. First, it could be provided as a *bonus* for each year or

other time period that teachers were to engage in the activity. A bonus approach is particularly appropriate for the individual-oriented examples of contingency pay. The bonus for contingency pay can be distinguished from a performance bonus because the focus is on providing rewards for engaging in the *process*, rather than on rewarding particular *outcomes*. Bonus programs, however, require a separate and "protected" funding pool.

The second approach, which was used in the Saturn plant, is to hold back a portion of base pay and make it contingent on everyone engaging in the identified processes. This approach does not require a separate funding pool, but it does put a portion of base pay at risk both to each individual engaging in the identified activity as well as to all individuals engaging in the activity.

We believe that holding back a small portion of pay contingent on engaging either in ongoing professional development or production of a school quality review could work in education. Both activities are doable, with the understanding that the district would invest in sufficient professional development opportunities to allow all professional staff to meet their obligation. But, because these ideas are quite new to education, experimentation is needed with alternative structures and analysis of which strategy works better and in what contexts.

The dollars for the individual teacher tasks would best be provided on a bonus basis. We suggest that a small sum be provided for salary bonuses for teachers who engage in small but important development or research tasks for the district.

Douglas County, Colorado, has developed a school-based performance award that is an excellent illustration of one approach to contingency pay. This contingency pay component is described below in the context of the entire package of compensation reforms adopted in Douglas County in 1993-94.

The Douglas County, Colorado, Example

In 1993-94 in Douglas County, Colorado, teachers, the teacher union, community members, and administrators developed a new pay plan to replace the single salary schedule. Implemented in 1994-95, the plan had several components that drew from all the models we have suggested, as well as from ideas we have not articulated.

First, the new pay program maintained the education units portion of the single salary schedule and continued the district's practice of restricting the units that could earn salary increments by requiring that the course work be earned in relevant subjects.

Second, the plan revised the years of experience component to provide annual increments only for years of experience in which a teacher's performance is judged "proficient" by his or her principal. The compensation committee spent considerable time attempting to identify specific standards that teachers must meet to earn a proficiency rating. When implemented, the plan also required principals to assess teachers as to their proficient performance.

In addition, the new plan added four bonuses:

1. *A school performance award bonus,* or what we describe in this chapter as contingency pay. Under this bonus award, each school could voluntarily identify a schoolwide project that had the potential to affect student performance. Schools submitted a proposal at the beginning of the year to a districtwide committee of teachers and administrators. The proposal had to identify activities to be undertaken and required student pre- and posttests to document results. All participating teachers had to sign the proposal, and letters of support had to be included from administrators and community members. Bonuses were awarded to schools that successfully completed the set of activities prescribed, whether or not student achievement improved. This stipulation was intended to award creativity, innovation, and risk taking, rather than to provide a potential incentive for schools to manipulate the process to show gains in achievement (e.g., by focusing their efforts only on those goals they knew they could achieve). In the first year, every school participated (although a few teachers within the schools opted out of the process). Each year, the level of the award per teacher depends on the number of schools and teachers that successfully complete the process.

2. *A $1,000 bonus for outstanding teachers.* Teachers had to indicate, in the fall of each year, whether they planned to apply for the award. During the year, they would develop a portfolio of teaching practices that was assessed by the principal relative to specific written criteria. No limit was placed on the number of outstanding teacher awards that were awarded in a year or to the number of awards that a teacher could receive over time.

The criteria for outstanding teacher were developed through liberal borrowing of the guidelines used by the NBPTS and the National Educational Goals. Three broad areas must be demonstrated by the teacher in his or her portfolio: (a) *assessment and instruction* (believes all students can learn; adjusts for individual differences; varies instruction; motivates students; and assesses students effectively); (b) *knowledge of content and pedagogy* (knows the subject and how to teach it; knows how subjects are related; relates subjects to the real world; and is reflective); and (c) *collaboration and partnership* (collaborates with professionals; works with parents and community; draws from resources; contributes to the school and the profession; and respects diversity).

As a result of the outstanding teacher bonus, teachers reported a significant increase in the level of professional discourse occurring on an informal basis in the schools.

3. *A $250 to $500 bonus for learning one or more specific skill blocks identified by the district.* Training for each skill block was provided by the district. During a 3-year period, all teachers interested in obtaining the skill could voluntarily participate. At the end of this 3-year period, the skill blocks would be incorporated into the annual evaluation as skills required for all "proficient" teachers. In the first year, the district offered training for only one skill block—computer skills (an integrated word processing and data base system)—but anticipated increasing the number of skill blocks over time (to approximately seven skill areas). The second skill block to be implemented was on student assessment. Teachers reacted positively to the concept of being paid to acquire additional professional skills. A potential area of concern, however, was the availability of district sessions designed to provide skill training (Hall & Caffarella, 1996).

4. *A bonus for responsibility pay,* which for most teachers was nominal ($35 to $200 per year). Each school received $4.50 per student for responsibility pay. A teacher committee was established at the school site to determine how the money would be distributed. In the first year, it was used to compensate teachers for leadership on school committees, coaching, and curriculum development and for advising student activities. Teachers reported that one advantage of the system was "their extra efforts beyond the normal classroom hours were being recognized by the school." A potential disadvantage, however, was excessive record keeping concerning these additional duties (Hall & Caffarella, 1996, pp. 24, 27).

The Douglas County case provides a rich model for how one school district has begun, on its own, to implement versions of both competency pay and contingency pay. First, the overall plan, particularly the annual rating to a proficiency standard, reflects Model 2 of competency-based pay described in Chapter 5. Annual increments are no longer automatic, but rather are provided only when a teacher's practice meets set standards. We recommend that the training component for the Douglas County plan be augmented and that peer teacher review of teaching practice could also be an added component.

The outstanding teacher bonus is a merged version of competency pay and contingency pay; it is focused both on demonstrating skills and on engaging teachers in specific activities. If the district focused or targeted the teacher portfolios on competencies required for earning certification from the NBPTS, it could strengthen that element by linking it to an external professional initiative undergirding high and rigorous standards for teaching practice.

Three other teacher bonus possibilities represent versions of both contingency and competency pay that emerged from this district's efforts to revamp its overall teacher compensation structure. Although they might not reflect "classical" versions of these notions, they represent the product of a careful, year-long effort to make teacher compensation more related to desired competencies and activities.

First, as alluded to in the example, contingency pay can be particularly useful in conjunction with competency pay and group-based performance awards. Contingency pay can be used to encourage risk taking. In the Douglas County example, teachers were expected to target activities that would improve student performance but were rewarded for undertaking the improvement process whether or not it resulted in an immediate improvement in student outcomes.

Second, contingency pay can be used to develop and apply knowledge and skills created in the competency pay system and can reinforce positive professional practice by developing an organizational culture that supports experimentation and research in support of continuous organizational improvement.

And third, contingency pay can be used in conjunction with a group-based performance award (a) to broaden the focus of teacher activities that otherwise might be overly restrictive through a more narrowly focused performance pay system or (b) to strengthen the incentive to modify teaching practice for those schools likely to have difficulties

meeting improvement targets. For example, in Kentucky, teachers in some schools thought that changes in student populations over time, changes over which they had little control, could result in significant changes in student performance over time despite their best efforts. Teachers in other schools with high mobility in the student population worried that they could have little effect on outcomes. A contingency pay component that rewarded teachers for undertaking a transformation process to improve student performance, such as the contingency pay component in Douglas County, might have improved teacher motivation in some of these Kentucky schools to make teaching changes to improve student performance even when student turnover was high. For example, teachers could have been rewarded for reviewing student performance data and for identifying specific measures they could take to improve student performance in the future. Because a performance award provided an incentive for actually producing results, a contingency award could have provided the motivation to develop strategies to improve performance even in tough education settings.

School Bonuses for Improved Student Performance

7

Since the mid-1980s, education reform has focused on results: The core goal is to educate students to high achievement standards. Although the education system has numerous important goals, a key difference between reform today and reforms of the past is the much clearer interest in producing student achievement results. In most states, interest is on achievement in the core subjects of mathematics, science, writing, language arts, and some combination of social studies, history, geography, and civics (Pechman & LaGuarda, 1993). Some states also include foreign language, art, music, and health/physical education. Other results are also usually desired, such as greater high school graduation rates, grade-to-grade promotion rates, student and teacher attendance, and parental involvement. Sometimes enrollments in academic courses, such as algebra and geometry in high school, also are desired outcomes based on the assumption that students taking academic courses learn more in those subjects.

As we argued in Chapters 3 and 4, these system results could be reinforced by an education performance award, or a bonus provided when certain results—usually, improvements based on past performance—are produced. We are not proposing individual incentives or individual merit pay programs that have dominated past education efforts at implementing performance awards and have failed (Hatry et al., 1994; Jacobson, 1987; Murnane & Cohen, 1986). We are proposing performance awards

that would be provided to a group—a faculty in an entire school or faculty in a subschool team such as a "house" or department.

Designing group performance awards that encourage teachers to produce the desired results and not just "game" the system (e.g., hold back the lowest achievers, exempt the students with disabilities or with limited English proficiency, teach only the best and the brightest, ignore other important objects of schooling) is complex and is the focus of this chapter.

Group-Based Performance Awards

Group-based performance awards, or collective incentive pay plans, recognize that student outcomes are the joint product of many people working together in a school. Group performance awards explicitly encourage school staff to work together toward common goals, such as improving student performance. Collective incentives provide an important symbolic focus on outcomes while avoiding the divisive aspects of *individual* performance incentives.

As we have argued previously, individual merit pay, the most commonly applied result-oriented incentive system in education, creates competitive rather than collegial work environments. The underlying assumption of individual merit pay is that the *individual* teacher has control over the achievement of school goals, which we have argued is not the case in collegially run schools. In addition, individual merit pay often creates poor relationships between teachers and administrators.

By contrast, collective incentives, such as group-based performance awards, assume that the entire faculty, administration, support staff, and student body must work together to produce achievement results. For this reason, group- or school-based performance awards would provide a financial bonus to everyone in a school in which schoolwide results met specific and measurable targets. Group-based performance incentives could provide bonuses to all school employees—faculty, administration, support staff, and even additional funds for the student activity fund—when, for example, student achievement in core content areas exceeded some predetermined criterion for improvement. A separate funding pool must be created to finance performance awards.

Gainsharing is another type of group-based performance incentive; it too links improvement targets to costs. Gainsharing programs provide

incentives for employees to find more efficient, lower-cost ways of achieving school goals. For example, if school sites were given the money the district had budgeted for substitute teachers (or for school heating, electricity, and telephone expenses) and produced savings in these expenditure areas while also producing increased achievement, the savings could be used to provide teachers a salary bonus. Further, a high school might create some large classes taught by teachers who were excellent lecturers, as most colleges do, which might both lower costs and improve results. A gainsharing plan could allow the cost savings to be used for a salary bonus. Some issues that would need to be resolved are discussed later in the chapter.

In most organizations, gainsharing plans are usually implemented along with substantial decentralized management (Mohrman et al., 1996). The core notion of gainsharing is to encourage teachers to create ways to produce more results at a lower cost and to share a portion—if not the entire amount—of the savings with other teachers. A key advantage of gainsharing is that the bonuses are self-funding; that is, they are paid for by the savings produced.

The symbolic significance of group performance awards—the focus on results and, in the case of gainsharing, the combination of results and costs—might be more important than the fiscal incentives they would provide. An important education goal within each school is to create a collective focus on results and to encourage collaborative actions to improve results. A performance award is a formal, tangible symbol from the system that this goal is important, but the behaviors that such an award motivates or rewards are probably more critical than the economic value of the bonus itself.

Designing Group Performance Awards

Group-based performance awards must be designed carefully. Performance awards should be provided as a bonus—an addition to base salary. The bonus is provided for improving school results. To function as an ongoing incentive, the reward must be earned each year or each bonus award time period.

The key and most complex task in creating a performance award is defining the performance measure. The performance measure must include the most valued school goals and be based on value-added, or improvements in, performance. The performance measure must also be

adjusted for student mobility, be explicit about the achievement targets for students in special education programs, capture student performance across the full range of achievement levels so that the bottom students are not ignored, and include appropriate modifications for socioeconomic (SES) background to ensure a level playing field for participation in the award. In the following sections, we address these and other issues involved in designing group performance awards.

A Bonus, Not an Addition to Base Salary

One important aspect of a performance bonus is that it should be a bonus for performance during some specified time period, rather than an addition to base salary. Too many organizations have a performance review different from the annual review for expected behavior and add the financial reward to the person's base salary. As a result, the person is rewarded every year thereafter for the quality of work performed in a single year. Although workers often prefer this approach because they are rewarded perpetually for one-time performance, costs to the organization can far exceed the benefits, and the workers reaping the rewards may not be those currently contributing most to organizational performance. Indeed, research shows that, in organizations that add annual performance awards to base salary, the people with the highest total salaries are those with the most years of experience, not necessarily those most productive in any given year (Lawler, 1990).

The core idea behind a performance award is to provide a bonus for performance during a specified time period. For this idea to work, the award must be re-earned for each time period it is provided. For example, a school system might provide a performance award for schools that produced predetermined improvements in student achievement, say at the fourth- or fifth-grade level, over a single year. But because a new cohort of students would comprise this grade level each year, it would make sense to provide the award as a bonus so that it must be earned for each new group of students.

As will be discussed, the size of the performance award need not be large. A performance award is as symbolic as it is economically rewarding. It functions as a formal system symbol for producing better results over some time period. But, to motivate improved performance each time period, it must be re-earned each time period it is offered and thus must be provided as a bonus.

Establishing a Bonus Pool

Past education performance awards have suffered from a number of fatal flaws, one being the lack of consistent funding. As a result, most teachers are skeptical about the notion of a performance award. At first, they think it will represent just another round of divisive individual merit pay, but if such awards are designed to reward groups, skepticism will center on whether funding will be sufficient or long term. This skepticism is well earned in education, for which performance award funding has often been insufficient and cut after the first few years.

For example, before Kentucky distributed its performance awards (described below) in 1995, it had previously promised teachers a $300 performance bonus. But that bonus was never funded. In field research on impacts of the current program, we discovered that teachers were skeptical about the current program until they actually received their bonus checks. They simply did not believe that the state would actually fund the program and distribute the awards. As a result, the program functioned more as a reward in the first years and less as a motivator of high-performance behaviors.

States and districts can ruin for years the potential of a well-designed performance award by providing either insufficient funding or cutting funding prematurely. In other words, for a performance award to stimulate, motivate, or reward teachers for delivering better student achievement results, it must be anchored by a sufficient, stable, and long-term funding base.

A sufficient funding base would be large enough to provide the performance award to all individuals in all schools that qualified—that met the benchmarks for improved performance. Initially, that would mean the funding pool must include all schools. With knowledge gathered over time, a state or district might be able to predict accurately the percentage of schools that would qualify and thus could potentially reduce the overall funding pool. But some type of contingency funding would still be needed in the event that more schools than predicted qualified. A better option, as we suggest below, is to maintain the full funding pool but to add a second tier or subschool team award to the schoolwide award.

The most common funding procedure is to budget a fixed pool of money and let the value of the performance award vary, depending on the number of schools and of individuals that qualify. Another procedure is to budget a fixed pool of money and a fixed amount of the award and to award schools in decreasing order of improvement reached until the

budget pool is exhausted. The advantage of both approaches is that the funding amount is predictable and fixed. The disadvantage with both approaches is that they can undercut the influence of the performance award. As to the former, if individuals are working toward a bonus, say $1,000 per teacher, but twice as many schools qualify and the bonus amount is reduced to $500, the economic worth and incentive power of the bonus is eroded. As to the latter, if a school meets improvement targets but is not rewarded because the bonus pool is not large enough, the motivating force of the program is undercut. In both cases, teachers lose trust in the system and may lose motivation in future cycles.

The reason a set pool of dollars is budgeted for performance awards—and then eliminated after a few short years—is that districts and states rarely view performance awards as permanent aspects of education funding. These awards have been viewed as extras; the rhetoric surrounding initial enactment is robust, but the programs are essentially add-ons. For a performance award to work, it must be considered a long-term—if not permanent—aspect of the education program and of funding as well. This means that funding for performance awards must be built into the general funding and budgeting systems of states or local school districts.

We suggest the following. The pool for performance awards could be a fixed percentage of the budget. This percentage would be set aside each year for the performance award. An estimate could be made of the number of schools (and thus the number of persons) eligible. Given this estimate, the amount of the performance award could be determined.

For example, if a school district were spending $6,000 per pupil (about the current national average), a 1% set-aside for a performance award pool would equal $60 per pupil. Assuming a pupil-staff ratio of about 20:1, that would provide $1,200 per teacher or professional staff member, also assuming every school and thus every staff member qualified. If just half the schools qualified, the amount per teacher would double to $2,400. As we argue below, both of these levels would be sufficient to function as a performance award in education.

In short, we suggest that the performance award pool be set at 1% of a district's overall education budget from both the general and special funds (but not including the capital fund). These dollars should be put into a special "pot." In the first years, the level of the awards should be set so that all teachers could earn them if they were in schools that met benchmarks for improved performance. Annual funds not used for bonuses (if not all schools qualified) could be spent for professional development or for other purposes geared to raising performance levels. Over

time, the level of the award could be increased to a level conservatively geared to the percentage of schools estimated to meet improvement targets each year, or additional elements could be added to the award structure.

This approach would provide both sufficient and long-term funding. Of course, at any time, a state legislature or school board could eliminate the performance award. But, by financing the award pool with 1% of the budget, the money could easily be made available each year, it would provide sufficient funding for a meaningful award, and it would connote long-term commitment to school improvement and the use of performance awards.

The Performance Measure

The performance measure is critical to the success of a school-based performance award. The long list of research on performance awards in education and other organizations is clear that systems—schools—will get more of what is measured for the performance award and less of other system results. A performance award based on a narrow measurement would stimulate improved results on a narrow set of outcomes. For example, if the performance measure included student achievement in only mathematics and reading, teachers would probably put more emphasis on those topics and less emphasis on other topics, such as writing, science, and social studies.

The Most Valued Results

Thus, in creating a performance measure, states and districts must decide on the most valued school results. We suggest that student achievement be the anchor or major element in any performance measure. As we show below, nearly all states and districts that have created performance awards have made this strategic choice. Generally, we suggest that the performance measure include at least student achievement in mathematics, language arts, writing, science, and social studies (or history, civics, and geography). Achievement in these subjects should constitute at least 50%, and probably more, of the performance measure. This percentage would clearly link the performance measure to the key goal of education reform: student achievement to high standards in core subject areas.

Other desired system outcomes could include high school graduation rates, postsecondary attendance rates, student and teacher attendance

rates, and rates of parental involvement. Some districts administer periodic surveys of parent satisfaction with their children's school as a measure of school performance. For elementary and middle schools, promotion rates from elementary into middle school or from middle school into high school could be included. The point here is that districts or states may want schools to produce other outcomes and that these too could be included in the performance measure.

In constructing the performance measure, each factor would need to be weighted. For example, a decision would need to be made on whether achievement in the five subject areas would be weighted equally or whether some subjects—for example, writing—would be weighted more. The performance measure could also include measures of achievement within subject areas. For example, if the mathematics curriculum and the testing system were aligned with the standards of the National Council of Teachers of Mathematics (NCTM, 1989, 1991), achievement scores could be obtained for numbers, probability and statistics, geometry, algebra, and the other major mathematical topics. Each of these could also be weighted differentially. A decision would also have to be made on how much to weight the nonachievement topics included in the overall performance measure.

All the weights are value judgments and should reflect state goals, community values, district instructional emphases, and school objectives. There is no a priori correct set of weights. Obviously, the most valued outcomes should be weighted the most, but deciding what measures are most valued should entail significant discussion. States and districts could experiment with different weighting strategies. The weights could even vary by district and school.

The Performance Measure

Constructing the actual variable to determine whether a school were eligible for the performance award would entail another series of complex decisions. One option is to require that the overall performance measure meet some absolute high standard. The problem with such an approach is that it does not recognize improved performance for schools that start from a low performance base; it would provide performance awards to districts or schools already achieving at high levels. Analysis has shown that such an approach would have skewed the awards to the most advantaged schools with the most advantaged students in school-based perfor-

mance award programs in South Carolina and Dallas, Texas (Clotfelter & Ladd, 1996).

The philosophy behind a performance award is to stimulate continuous improvement. Therefore, the performance variable determining eligibility should be based on value added, or changes relative to some base or beginning time period. Clotfelter and Ladd (1996) showed that a simple change variable eliminated the bulk of race and income bias in a simple measure of "raw" performance.

We suggest that the change be based on more than a simple comparison with the past year. Schools can "game" this approach by improving in 1 year, relaxing in the next, and improving in the following year, thus earning half the performance award, on average, over the long run. Changes would be best calculated on the basis of several years of data to ensure a continuous improvement over time; the amount of change in any one time period, such as a year, can be adjusted, but the multiple year time period would show whether that improvement was part of a long-term trend or just a 1-year phenomenon. Alternatively, a school would be required to produce improvements above previous performance levels.

But even adopting an adequate measure of change leaves open several issues. The key is how large a change should be required. It should be large enough to encourage greater than average improvement but not so large as to be unattainable. Unfortunately, we have no clear answers to how large a change should be required. States and districts must experiment to determine the size of change that would allow a performance award to function best. The size of the gain expected may also be a function of the extent to which other resources—standards, professional development, site-based management—are available to the school for achieving performance targets.

Another approach to deciding how much change to require is being tried in Kentucky. The goal there is to have all schools teach all students to proficient achievement standards within 20 years. In 1992, a test was given that established each school's starting point. In each 2-year period, the school must improve 10% of the distance to 100% at or above proficiency to qualify for the performance award. For example, if a school had 20% of its students at proficiency in 1991, it would need to increase that percentage by 8 percentage points (10% times 80% remaining) to a total of 28% to be eligible for the next biennium performance award. In the next biennium, the target would be 28 plus 8, or 36%. Only experience will tell whether that strategy is workable. It has the twin advantages of

including both an absolute target of high performance and changes over time.

The actual Kentucky formula to determine the percentage at proficiency is a bit more complex. Student performances are scored at four levels: novice, apprentice, proficient, and distinguished. The school score is determined by multiplying the percentage of students at the novice level by zero, at the apprentice level by 0.4, at the proficient level by 1.0, and at the distinguished level by 1.4. The distinguished level is also considerably above the proficient level and so represents a substantially higher level of performance. Although this approach includes the scores of students along the full range of performance, which we recommend, the novice level has a fairly wide range of achievement. Some in Kentucky have claimed that students at the low end of the novice level could improve substantially but still not to the apprentice level and that their improvement would not be captured in the current scoring structure. An additional level could be added to capture this improvement.

Another element in calculating the performance benchmark is whether a simple calculation, such as is done in Kentucky, is sufficient or whether more complex statistical manipulations should be used. The private sector has tried both approaches (Heneman, 1992). Most would argue for a simpler approach to enhance the possibility that all teachers would understand what is in the performance index and thus have a better understanding of what to emphasize to qualify for the award. But simpler measures ignore many adjustments that the more complicated statistical calculations make and that, many argue, are necessary for the measure to be fair. Both South Carolina and Dallas, Texas, make sophisticated and complex calculations, adjusting for race, poverty, and other biases (Clotfelter & Ladd, 1996). We suggest a less statistically sophisticated approach but recognize the merits of the arguments for the more complex approach.

We are aware that many educators and policymakers in Kentucky would take issue with our calling their approach simple or understandable. The Kentucky school score not only weights differently the percentage of students scoring at the different levels of their tests but also adds a series of additional result measures to the overall score. As a result, many call the Kentucky approach complex. The distinction we make is that the Kentucky approach uses simple arithmetic to calculate the school score, whereas the Dallas approach uses very complex regression analyses that adjust for several SES variables. We know that the Dallas approach is complex statistically and that the Kentucky approach is not. But neither

program uses just a simple change measure, and such an approach would probably be too simplistic and might even be viewed as unfair.

Finally, teachers must view the performance measure as fair. This means that teachers in a variety of school settings and with students from a variety of backgrounds must view the measure as providing them with an equal chance to earn the award. As we also suggest below, having teachers centrally involved in developing the entire performance award program also strengthens the perception of fairness.

Preventing Gaming

The more difficult element of constructing a performance index is how to minimize the pay system's potential to promote "gaming," or inappropriate behavior in which teachers could engage in order to qualify for the performance award. States and districts will have to experiment with different approaches and learn through experience and research which strategies work the best. Several potential gaming issues must be addressed, with the caveat that it is nearly impossible to eliminate gaming; the goal is to minimize such behavior while also working to motivate desired behavior as much as possible.

One issue is how to treat low-, average-, and high-performing students. If average test or assessment scores are used, the incentive for teachers would be to work more with the higher-performing students. A little more work with them would likely increase the average a substantial degree. Thus, the performance measure should include improvements across the range of student performance. Measures could be taken by quartile of student performance. Changes for each quartile could be required. Changes for the bottom two quartiles could be weighted over those of the top two. As described above, Kentucky uses student results at four levels of performance, weighting each differently but with the largest weight for performance at the distinguished level. A variety of approaches could be taken, but measures of students along the range of performance are needed to have the performance measure recognize teacher efforts to increase the achievement of all students.

A second issue concerns special education students. One approach—which has been tried in some places—is simply to exempt the scores of all students with disabilities. But this approach also creates a disincentive for teachers to expend extra effort to improve learning of these students. We suggest that the scores of students with learning disabilities, who constitute the bulk of students in special education, should be required in

the performance measure. One could also argue for including the scores of students with mild disabilities. States and districts need to debate and discuss how to treat other categories of students with disabilities.

A third issue is the student with limited English proficiency (LEP). Again, some programs simply eliminate the scores of these students, but that seems ill-advised. One approach is to allow the better of their scores on an English-based examination and an examination in their native language. The problem is that few states or districts have sufficient assessments in the native languages of all their students. Another approach is to allow districts to exclude LEP students for a certain number of years and then to require that these students be included, but this approach has the downsides of any exemption policy.

A fourth issue pertains to student mobility: how to treat the scores of students who may start school in one site but end it in another—that is, who do not attend school in one site over the duration of the performance award period. Kentucky's approach has been to ignore this problem. The signal is that all schools must work hard to educate mobile students. With common statewide standards, this is a more feasible approach. But it certainly makes qualifying for a performance award harder for sites that have large numbers of students who end the performance award in the site but who do not start the period at that site.

Another logical approach is to exempt such students from any school's index, but that approach again has all the downsides of any exemption policy and, in many urban schools, could reduce the number of students who "count" to a very low percentage. Adequate ways to adjust for mobility is another issue that must be worked out through experimentation over time.

Ignoring mobility in the award calculation could force districts and schools to work together to address "localized" mobility. Districts could act proactively to provide transportation to keep students in the same school or work to develop complementary curricula in feeder schools. This approach is harder in some schools, such as those with migrant workers who periodically leave the district or with immigrants who are new to the country, but creative schools could find ways to address the problem of mobility rather than ignore it. Some large districts have found that mobility can be significantly reduced if students are allowed to attend their original school even if their family moves out of the school's attendance area.

Finally, states and districts would need to set rules on attendance and promotion. Two ways to improve test scores that have stakes are to

encourage the lower-achieving students to be absent on the days the tests are given or to "hold back" lower-performing students and not promote them to the next grade. The latter policy is ineffective in producing achievement over time (Shephard & Smith, 1989), and the former is just manipulating scores for any 1 day or set of days. These approaches could be curtailed by requiring that the school could qualify only if a high percentage of students took the test, even 100%. If the test were given at a certain grade level, such as Grade 4 or 5, a requirement could be set that the entire cohort of students who began school in a certain year would need to take the test in order for the school to qualify.

In short, several potential issues need to be faced directly as states or districts decide on the details of a performance measure. On some issues, experience will perhaps teach educators how to make the best adjustments. Until that time, each district and state will need to decide how to address the above tricky issues.

The Achievement Test

The final issue in creating a performance measure or index is the nature of the actual achievement test itself. If the test assesses only basic skills, teachers likely will spend more time on basic skills and less time on more advanced skills and problem solving. We suggest using a criterion-referenced test that assesses not only what students know but also what they can do with the knowledge and thus includes at least some performance tasks. The dilemma is that good performance assessments are just now being created (Resnick, 1994; Rothman, 1995) and producing tests that are both valid and reliable is challenging. Kentucky is using its new performance state assessment for its performance award program, but this policy is not without controversy.

There are two sides to the issues of reliability and validity with the new Kentucky performance assessments. Given the difficulties of getting statistically reliable and valid scores on performance assessments, some in Kentucky would like to change the test to include more multiple-choice items. Others believe that the type of student performance symbolized in the current Kentucky assessment—more complex problem solving—is more important than trying to have a new type of test meet old testing standards. We basically take the latter position but recognize that reasonable and intelligent individuals can differ on this issue.

Many states and districts will want to use a state test, if it exists. This is a natural choice because a state test—whatever its strengths or weak-

nesses—represents one official version of what the state values most in terms of education results. But the above cautions hold; if a state test assesses only a limited set of skills, it will encourage teachers to focus more on those items and less on other valued results.

We strongly urge states and districts not to use norm-referenced standardized achievement tests; they do not connote the notion that all students can achieve to high set standards. Such achievement tests are designed to identify which students are smarter or better educated than others. They do not test whether any student has mastered a body of knowledge, which again is the goal of reform. Nevertheless, many states and districts might feel driven by public or political pressure to administer norm-referenced standardized achievement tests and might also be pressured into using them in a performance award as well. If that were to occur, we suggest weighting them less in the overall set of achievement measures and weighting the results of other assessments higher. This has been the approach taken by the Dallas, Texas, school district.

For states or districts that have nothing other than a norm-referenced standardized test of student achievement, we strongly urge them to select and begin using immediately a different instrument. At least three possibilities can provide solid measures of what students know and can do in several subject areas. The first is the set of assessments from the New Standards Project, which includes multiple-choice and performance assessments in mathematics and language arts and shortly will provide assessments in science as well. These assessments are available from Harcourt, Brace and Educational Measurement Corporation. The second includes new assessments, some equated to the New Standards Assessments, from the Psychological Corporation (e.g., the Stanford Nine), revised tests from CTB McGraw-Hill, and perhaps other commercial testing companies as well. These new assessments often can cover several subject areas, can be scored to criterion levels, and can include performance tasks as well. The third is current state assessment instruments, such as those in Connecticut, Kentucky, and Maryland.

Levels of Reward

Another important issue in designing a performance award is the level of the award. The general guideline in the field has been that the level of the award must be strong enough to provide an economic incentive for improved performance. The actual value of performance rewards varies considerably in private industry. On average, gainsharing and profit-

sharing bonuses were about 9% of base salary from 1980 to 1985 (O'Dell, 1987).

But more recent research is suggesting that smaller performance awards could also work, particularly in organizations that provide for substantial employee involvement, which we argued in Chapter 4 was motivating for teachers. In fact, the new research suggests that when a performance award is used in conjunction with a decentralized management system that substantially involves workers in designing the nature of work tasks as well as managing the overall operation, performance objectives can be achieved with a relatively small award—in education, the equivalent of $1,000 to $2,000 per teacher (McAdams, 1995). Thus, we suggest that districts design performance awards at this general level. As shown above, such awards could be financed with a 1% budget set-aside.

To avoid rewarding improvement targets that might be too conservative, two levels of rewards might be possible. The first level would be a modest but meaningful bonus, such as $1,000 per teacher, based on accomplishing an improvement threshold. The second level could be achieved if the school exceeded its improvement target by an additional percentage. For example, if a school had been targeted to increase by 10% the percentage of students achieving at the proficient level in a particular time period, the first level of payout could be achieved if that 10% increase were met over that time period. A second level of payout could be achieved if, say, a 15% or more increase were produced. The second level payout should be more substantial because it represents a substantial accomplishment beyond what had been minimally targeted. If states or districts began a program with a $1,000 payout for meeting improvement targets and learned, over time, that only 50% of schools qualified, they could use the remainder of the performance pool to add a second-tier performance award.

Philosophy Underlying Distribution of Funds

Different philosophies could guide the distribution of bonus funds. In all the examples given above, the philosophy was that each of the workers would be given an award of equal amount even if their base salaries differed. Another philosophy is to link the performance award to the base salary so that each school member gets a bonus equal to a certain percentage of his or her base pay. A lump sum distribution equivalent for all professional staff, regardless of their base salary, would be based on the

premise that differentiation between value of contribution is captured in the base pay portion of compensation. Many organizations, however, choose to deliver bonuses as a percentage of base salary. This approach also has a compelling logic. Particularly in a competency-based pay system, those with larger salaries will be those with greater depth and breadth of skills and, it could be argued, have more pivotal effects on school performance.

Nearly all programs in education have used the equal lump sum approach, and this seems to be the emerging practice in the private sector as well. This approach can also contribute to the cohesion of the team and reinforce its mutual problem-solving efforts. Indeed, in Dallas, one level of lump sum is provided to all professional staff, and another, at half the level, to all classified staff. Some districts or states might want to experiment with a bonus equal to a percentage of base salary.

School-Site Variation

As schools develop their own work designs, they may want to develop a bonus distribution system tailored to their work design. In particular, if schools create subunits within the school whereby a defined group of teachers is responsible for the learning needs of a defined group of students, such as an ungraded primary classroom that teachers might have for 2 or 3 years, the school might want to allocate bonus monies partially on the basis of schoolwide performance and partially on the basis of the performance of each subunit. This decision could be made by the school council and might require approval from a majority of the staff in the site.

In this case, the total bonus pool made available to the school would be determined by overall school performance. Part of the bonus could be paid on an equal basis to all staff in the school to reward and motivate schoolwide effort and collaboration. Another part could be paid to staff in subunits that have exceeded the school target. This system should not put subunits in competition with one another because schoolwide collaboration is important. Consequently, all successful subunits must be able to receive their performance bonus. The monies budgeted but not paid out to less successful subunits could be used for staff and team development activities aimed at increasing the performance levels of those units.

We recommend that performance awards to subschool units be a secondary objective and implemented after schoolwide performance

awards are designed and implemented satisfactorily. The primary goal is to create a simple, straightforward, schoolwide performance award that works—that, in addition to other system strategies, encourages individuals in schools to work hard to improve student performance. Once states and districts have learned how to design and implement effective schoolwide programs, creation of either second-tier or subschool unit additions could be attempted.

We suggest concurrent experimentation with subschool performance awards in large high schools, either to "houses" in restructured high schools or departments in traditionally structured high schools. High schools tend to be large, and the line of sight between house or department membership and schoolwide performance might be too distant. Again, any subschool award should be contingent on first meeting schoolwide performance benchmarks.

Gradual Phase-In

On the basis of past failures of individual merit pay in education, school performance bonus systems could be met with considerable skepticism by educators and policymakers. We have outlined some issues that should be considered and resolved before educators and policymakers adopt such an approach. In the short term, the competencies- and knowledge-based component of new pay systems might be given priority for implementation. Indeed, a school system might decide that its best prospect for increasing student learning is a knowledge- and competency-based approach that helps ensure a skilled teacher in every classroom. Indeed, there is precedent in the private sector for initially implementing just a skills- and knowledge-based pay approach to show how new skills and knowledge of workers can combine with redesigned work processes to improve organizational results. A subsequent introduction of school performance bonuses could then provide a renewed impetus for performance improvement, often several years after the initial implementation of the altered base compensation system.

School performance bonus systems can be gradually phased in. During the first year, a minimal bonus could be made available so that the stakes are not too great as teachers learn how the system works and begin to apply their collective talents to improving school performance. During the following year, the full sum could be made available solely on the basis of schoolwide performance. In subsequent years, schools could begin a two-component bonus system. Schools that already have a fully developed

"house" or "school within a school" system might want to begin with a two component bonus system.

Examples of Performance Awards in Education

During the past 5 years, several states and local districts have designed and implemented group- or school-based performance awards. The programs in Kentucky and South Carolina have existed for the longest period of time. The Kentucky awards provide a salary bonus; the awards in South Carolina can be used only for school improvement activities. The Charlotte-Mecklenburg, North Carolina, and the Dallas, Texas, programs, which also provide a salary bonus, are the most well known district-created performance award programs.

Kentucky

In 1989, the State Supreme Court of Kentucky ruled the commonwealth's education delivery system unconstitutional. At the time, the performance of students in Kentucky schools was among the worst in the country. In 1990, the state legislature responded by passing the Kentucky Education Reform Act (KERA), which redesigned Kentucky's education system. Among the initiatives of KERA was the development of an assessment and accountability system (Adams, 1993; Steffy, 1993).

The state created a new performance assessment system—the Kentucky Instructional Results Information System (KIRIS). KIRIS tests students in mathematics, science, writing, language arts, and social studies in Grades 4, 8, and 11. KIRIS scores are used as the anchor measure in the performance award program that is part of the accountability system (Kentucky Institute for Education Research, 1995).

Improvements in school performance are assessed on the basis of an accountability index. The index is made up of six equal parts. Five are based on the results of reading, mathematics, social studies, science, and writing scores on KIRIS. Under KIRIS, student performance is rated from lowest to highest as novice, apprentice, proficient, or distinguished. The sixth component is a noncognitive composite score based on attendance, retention, dropout rates, and transition to adult life (Kentucky Department of Education, 1995). Because students are assessed in Grades 4, 8, and 11, accountability is measured across cohorts of students, rather than

as longitudinal performance of a particular group of students. No adjustments are made for student mobility.

The improvement goals are school-specific and are equal to one tenth of the difference between each school's 1991-92 composite baseline score and a proficient rating, which is approximately equivalent to having a weighted average of students score at or above the proficient level. The rationale behind these interim goals is that they provide schools with a reasonable benchmark for improvement and set a high absolute standard for all schools. Because performance awards are awarded every biennium, the program is designed to provide incentives to bring each school's average performance to the proficient level within 20 years or less.

Every 2 years, schools that exceed their performance improvement goals receive a pool of funds that teachers can distribute as they see fit. By law, the funds may be used as salary bonuses, for professional development, or as school improvement funds. In 1994-95, the awards amounted to about $2,000 per teacher in eligible schools, or a total appropriation of $26 million.

In the first year (1994-95), 38%, or a total of 480, of Kentucky schools received bonus awards (Harp, 1995). Results at the school level have been mixed. At some schools, the question of how to allocate the award money resulted in intense debates over who should get the money. Many schools, however, found creative ways to use the money to reward a variety of school employees and even to provide incentives and rewards to students for their efforts on the assessments. Because 1994-95 was only the first year of the awards, it is still too early to tell the long-term impact of the program, including the type of behavior it motivates within each school.

South Carolina

The South Carolina School Incentive Reward Program (SIRP) is the longest running state-sponsored group-based performance pay plan in the nation. The SIRP was established with the passage of the Educational Improvement Act of 1984, signed into law by then-Governor Richard Riley, who became U.S. Secretary of Education in President Clinton's administration.

The SIRP awards approximately 25% of schools with performance bonuses for meeting student achievement gain goals and for maintaining high levels of student and teacher attendance. Schools must meet the student achievement criteria to be awarded 80% of the full award for that

year; an additional 10% is awarded to winning schools who maintain teacher and student attendance at or above 96% (Richards & Sheu, 1992).

The reward program places schools in one of five comparison bands based on four criteria: (a) percentage of students receiving free lunches; (b) percentage receiving reduced priced lunches; (c) average teacher's years of education beyond the bachelor's degree; and (d) percentage of students meeting or exceeding the readiness standard on the Cognitive Skills Assessment Battery, a test given in all elementary schools. Schools compete with other schools in the same band for awards, and SIRP rewards *improvement* in student test scores, rather than absolute levels of achievement (Richards & Sheu, 1992).

Award monies from the program must be used for instructional purposes by the winning schools; awards cannot be used for direct payments to teachers. Approximate awards of $25 to $40 per student have been distributed annually to winning schools, with the typical school receiving from $15,000 to $20,000 (Clotfelter & Ladd, 1996).

South Carolina's banding system provides a more equitable distribution of funds across schools with very different student SES (primarily poverty) levels than if the bands were not in place (Richards & Sheu, 1992). The banding system sets lower expectations for schools serving lower-SES populations of students, however, so it is also vulnerable to challenges of possible racial bias because high-poverty schools tend also to be high-minority schools.

Dallas

The key component of the Dallas teacher compensation innovation is a school-based performance award that is part of the district's accountability system. The system was created in 1990 by a commission with substantial representation from the business community. The performance measure was primarily based on the results of the Texas Assessment of Academic Skills, a criterion-referenced test covering five subject areas, and the Iowa Test of Basic Skills, which is a norm-referenced, standardized achievement test. The weights for each test varied annually. These tests also provided scores for subtopics within each subject area; these subscores were also used and given varying weights. The award was based on gain scores, aggregated to the school level from individual student data. The school gain score was the average gain for each student, which provided an incentive to improve the performance of every student. Each student's gain score was his or her actual score in a given year minus

his or her predicted score. Through complex, two-stage regression analysis, the predicted score was purged of the influence of any SES variables, including ethnicity, English proficiency, school mobility, poverty status, overcrowding, and race. These achievement gains were supplemented by schoolwide measures of student attendance, grade-to-grade promotion, dropout rates, enrollments in accelerated courses, and SAT and PSAT scores in secondary schools (Clotfelter & Ladd, 1996).

Schools' final performance gain scores were then ranked from highest to lowest. For the first few years, each principal and teacher in winning schools received a bonus of $1,000 and the nonprofessional staff received a bonus of $500 each. In addition, the school itself was provided $2,000.

A fixed fund of money was budgeted for the awards. Awards were provided to staffs and schools by rank order until the budgeted amount was expended. Each year, the number of schools actually receiving bonuses varied, which meant that some schools that produced significant improvements did not qualify for the bonus.

Beginning in 1994-95, Dallas created a second tier of winners, in which the bonuses were $450 for the professional staff and $225 for the nonprofessional staff. The goal was to provide some level of incentive to the lower-ranked but still improving schools.

The system was initially funded with contributions from the business community. Today, however, the program is fully funded with dollars from the district's regular budget.

Charlotte-Mecklenburg

The Charlotte-Mecklenburg program is similar in many ways to the Dallas program. Several steps were taken to create the Charlotte-Mecklenburg program. First, content standards were developed for the core subjects—language arts, writing, mathematics, science, and social studies; the standards were quite detailed, covering each subject and its subtopics for each grade level. Second, diagnostic tests were developed to allow teachers to gather information at the beginning and throughout the school year on the achievement status of each student. Third, teachers were trained extensively in how to use the results of the diagnoses to plan curriculum and instructional strategies.

State tests in these content areas were used to determine whether schools qualified for the performance award. The state tested each student in each grade level in each of these subject areas. The performance award was provided on the basis of improvements in schoolwide performance.

After the initial scores were compiled in the base year, about 1993, the district set a 5-year target for improvement. The goal was to have each school meet the target over a 5-year period. Schools scoring low in the base year had greater improvements to make. Each year, schools were required to improve 20% of their gap between their starting position and the 5-year goal. Gains were calculated for each student and summed across the school to determine schoolwide gains. Schools that had mobile students for at least 100 days during the year included those students' performances in their schoolwide scores. Separate targets were developed for white and black students, a controversial element but one designed to accommodate the large different starting positions for these groups of students. Schools that achieved 80% of their improvement targets qualified for the award. The award was a $1,000 bonus for all professional staff in the school and about $300 and $400 for each classified staff.

In addition, principals were evaluated on the basis of results. The core elements of their evaluation were whether the school met their improvement targets (qualified for the performance award) and teacher, parent, and student attitudes about the teaching and learning environment. If principals received a satisfactory evaluation, they were not evaluated for 2 years, as long as their school learning gains continued. Principals with unsatisfactory evaluations had to design improvement plans for deficient areas; if improvements were not made within 2 years, the principals were replaced.

Comments on These Programs

The 1990s versions of performance bonuses, represented by the above four examples, avoid the individual focus of merit pay and focus instead on reinforcing collaborative relationships and teamwork through group- or school-based performance awards. This approach constitutes a major step forward on the performance award front.

So far, all four have provided both sufficient and long-term funding, although the level in South Carolina is somewhat below the level we recommend and can be used only for school improvement and not salary bonuses. We recommend allowing the award to be used as a salary bonus for teachers instead of just for school improvement activities. But, comparative research over time should provide information on the motivational force of each approach.

One of the most difficult features in designing performance pay plans seems to be developing an appropriate performance measure. The crea-

tion of performance award systems brings with it opportunities to carefully design an appropriate assessment instrument; however, start-up costs are large, and the new system has kinks to be worked out. In each example, the state or district used existing tests, although the tests in Kentucky, Dallas, and Charlotte-Mecklenburg covered the five subject areas of mathematics, science, language arts, writing, and social studies. But, use of an existing assessment system carries risks that the assessment may not have been designed to be a high-stakes assessment and thus would raise questions about the validity, reliability, and focus of the instrument as the anchor element of a performance award. Even though Kentucky created a new test, it was created more to provide new kinds of results for more advanced student achievement than as a measure for a performance award. Creating new performance assessments is technically complex; questions have been raised about the technical properties of the Kentucky test and about the practice of using teacher-scored student results in a performance award for those teachers (Kentucky Institute for Education Research, 1995).

All four examples above use improvements in performance as the basis of the final performance index; this is the appropriate strategy. The programs have also made various adjustments to account for bias caused by factors outside the control of local schools; these and other adjustments must be analyzed over time to determine the best approaches for eliminating such bias. Both Kentucky and Charlotte-Mecklenburg computed each school's performance gain score relative to both past performance and an absolute standard. Thus, schools scoring the lowest initially have the largest gains to produce each year. By incorporating both a change and an absolute standard, this strategy seeks eventually to hold all students and schools to the same high-achievement standard.

The plans also take different approaches to comprehensibility. The complicated banding and statistical adjustments in South Carolina and Dallas, undertaken to eliminate SES bias, also make the performance index difficult to fully understand. But even in Kentucky and Charlotte-Mecklenburg, which use a simpler approach, the performance index is the product of numerous variables with different weights, which has lead many to say it is also difficult to understand. There will be some complexity even in a "simple" performance measure if it includes changes in achievement in several subject areas, as well as nonachievement areas, with each variable weighted differently.

Another important assessment issue is which students will be assessed to determine performance levels and performance improvement. South

Carolina, Charlotte-Mecklenburg, and Dallas use the scores of all students in a school, but Kentucky uses the scores of students in only one grade (Grade 4 for elementary schools, Grade 8 for middle schools, and Grade 11 for high schools). When the scores of students in only one grade constitute the overall school performance score, the internal message may be, erroneously, that only teachers at those grade levels produce the student achievement.

Finally, these examples take different approaches in deciding who or what gets the benefit of the performance award. In South Carolina, the bonus can be used only for school improvement activities; this approach assumes that base salary and intrinsic motivation are sufficient for teachers to produce higher and higher results. We believe that a salary bonus would make the program stronger.

In Dallas and Charlotte-Mecklenburg, the programs provide a bonus to all professional staff and a bonus at about half that amount to all classified staff; Dallas also provides a bonus to the school. This all-inclusive strategy seems to have strong support at the school level; it recognizes that everyone in a school—teachers, administrators, support staff, and students—must work to produce greater results. In Kentucky, teachers decide how the performance award will be used, whether for school improvement activities, for the student activity fund, or for salary bonuses, and who would receive those bonuses. Although this stipulation follows a tenet of social dilemma theory for reducing the "shirker" problem, anecdotal evidence suggests that many schools have found this issue difficult to resolve. Further, teachers decided to use the vast bulk of the dollars for a salary bonus.

We suggest that performance award plans stipulate in advance how the monies can be used. Unlike the policy in Kentucky and like the policies in Dallas and Charlotte-Mecklenburg, we suggest that salary bonuses be provided to all professional staff at one level, to all support staff at another level (probably 50% of the professional level), and that some funds also be provided to the student activity fund. But states and districts must experiment with alternative structures to determine which ones work the best in which school contexts.

Although these examples have many attractive features, we are not suggesting they are perfect. Although generally strong on some technical factors, they fall short of the process principles we suggest in Chapter 3 for developing new compensation systems. Further, many take significant issue with various features of these programs, such as the basic skills focus

on the South Carolina tests, the reliability of the Kentucky test, the different gain scores for white and black students in Charlotte-Mecklenburg, and the complicated statistical manipulations of the Dallas performance index calculation. Nevertheless, the above examples represent significant advances from the old merit award programs, and research over time should identify more of their strengths and weaknesses, as well as whether they actually contribute to higher school performance.

Gainsharing Programs

Currently, the emphasis and pressing need in nearly all districts and states is to improve student achievement. If a bonus system were to be implemented, it would be sensible to concentrate on performance outcomes as the bonus-worthy performance. Cost containment may become of equal importance, however, as school systems are required to improve performance with stable or declining resources. At some point, it may be wise to transition to an explicit gainsharing plan, wherein teachers are rewarded for the cost savings experienced while increasing performance with a stable or shrinking school budget. In the meantime, the fact that many school districts are encountering severe resource pressures means that bonus systems targeted on school performance are de facto gainsharing plans.

The core notion of gainsharing is to have work groups—usually schools, but the group could also be a subschool team—not only improve results but also cut costs as well. Three key issues must be addressed before any type of gainsharing plan is implemented. First, a gainsharing program must take the same care as the other programs mentioned above in creating a performance measure. A gainsharing program also must indicate the level of improvement required for a school to qualify for a financial reward if the other component—cost savings—of the gainsharing program were also met.

Second, a baseline measurement of costs must serve as the comparative benchmark for whether costs have actually been reduced. Both the methodology for calculating the costs and the prices attached to each ingredient in the cost structure must be clearly delineated. In addition, agreement must be reached on whether the cost basis should be inflation-adjusted each year to determine whether cost reductions have been produced or whether cost reductions should be made over and above inflation. Fur-

ther, agreement must be reached on the categories of costs to be included in the gainsharing plan; the goal could be to reduce overall school costs or just portions of school costs, such as utility expenses, specialist expenses, and sick leave.

Third, the district and site must agree on the portion of savings to be retained by the site and the purposes for which such funds may be used. Many private-sector organizations split the costs on a 50-50 basis. Because education expenditures are controlled by the district budget, we recommend that school districts consider letting school sites retain all their cost savings. If, as we suggest below, use of all the dollars for a salary bonus seems too generous, a portion (we suggest a large portion) of the gainsharing cost savings could be used for a salary bonus, with the remainder used for school improvement activities at the school site that produced the savings. Finally, districts and sites must experiment on the motivational aspect of different uses of cost savings, whether for school improvement purposes or for salary bonuses.

We mentioned earlier that a district could include utility costs (telephones, electricity, and heating) in a gainsharing program. These are small elements of the budget, but significant savings can be made by careful planning at the site. Because none of these costs include a salary element, it might be appropriate to restrict the use of any cost savings to schoolwide improvement purposes. A salary element, however, could provide a strong incentive.

If a gainsharing program includes what had been substitute teacher costs, one could argue that the savings could be provided in a salary bonus. A major way to reduce substitute teacher costs is to have teachers in the schools develop ways of structuring the teaching and learning tasks to reduce the need for substitute teachers. But this task usually means site teachers are working harder or smarter, thus making it logical to allow use of cost savings for a salary bonus.

We also mentioned having some high school classes be quite large and taught by teachers who give excellent lectures. This strategy would reduce costs. Although such a program might also need to be augmented by smaller seminars, faculties could potentially reduce costs with a mixture of small and large classes. Again, because these cost reductions are made by the reorganization of the teaching and learning processes, use of the dollars saved for a salary bonus would make sense.

School faculty also may use salary money to purchase computer technologies to replace some functions now provided by people. Such a

strategy would probably be phased in gradually, often when teachers would retire or otherwise leave the school. Each teacher vacancy would present a school that was seriously considering a restructuring strategy an opportunity to decide whether it wanted to use the salary and benefits dollars to hire another teacher or to begin a transition to a more technologically infused school in which more technology and fewer people provided instructional services. If such a strategy were chosen, cost reductions could be produced over the medium term, after the initial outlay for computer equipment. Because those saved dollars would derive from savings in the salary budget, their use for a salary bonus again becomes a logical consequence.

We are making several suggestions to allow gainsharing plans to provide teacher salary bonuses. On the one hand, this provision might strike some members of the public, the board, the administration, and others as unnecessary, that regular teacher salaries pay for the ideas and energies of teachers. We suggest, however, that the point of a gainsharing plan is to make it in the self-interest of teachers to identify strategies that both increase results *and* save dollars. If teachers do not benefit from the saved dollars, particularly if they work harder and smarter in the process, the program has no extrinsic self-interest element. Also, gainsharing plans fund teacher salary bonuses with no extra money; the bonuses are funded by dollars saved. In a sense, this approach provides a bonus at no cost! Finally, one goal of restructuring schools for high performance and for restructuring teacher salary schedules as part of that process is to raise the average levels of teacher compensation. Both performance awards and gainsharing bonuses contribute to this latter goal without even increasing the district budget.

In short, we hope that the idea of a gainsharing program and the ability to use the dollars saved for a teacher bonus would be viewed as a positive element for the education system. As we have indicated, we recommend that districts or states first implement competency-based pay plans to signal that an array of new competencies are needed and to provide a salary reward to teachers who develop them. We then suggest adding a group-based performance award for producing improvements in valued education results. As noted, such an award would be in the $1,000 to $2,000 range per professional staff member. We recommend adding a gainsharing program only after implementing these two compensation changes; this approach essentially puts an explicit cost reduction focus into the restructuring matrix.

Conclusions

The primary need for the education system is to produce higher student learning and achievement, and we think the key to that is increasing teacher expertise to teach a high-standards curriculum well to a diverse student body. Competency-based pay provides an incentive for this system element. We believe that a performance award at a small level, particularly when combined with real site-based decision making and restructuring (Newmann & Wehlage, 1995; Odden, Wohlstetter, & Odden, 1995), will also strengthen the focus on improving student achievement results.

A gainsharing program—that is, an explicit effort to reduce costs—is not as critical in education as it has been in the private sector. At the same time, if inflation-adjusted dollars do not rise in the near term, the education system must become more productive to improve results. Accomplishing that task is worth an economic reward in terms of a salary bonus, particularly if it can be self-funded by effective resource reallocation at the site level.

Finally, we urge states, districts, and unions to evaluate all innovations in teacher compensation. Any changes will be viewed with both skepticism and high interest. For both, the education system will benefit by collecting new information on how the new programs work, what teacher and student behaviors they motivate in schools, what seem to be the best design features, and which design features do not seem to work. We are optimistic about the potential of new compensation structures in education, but there is no template for how they should be developed or how they should be structured. States, districts, and unions must experiment with teacher compensation innovations, and then analysts must provide research and evaluation knowledge to guide the system on which elements work best and should be retained.

Implementing Better Compensation Systems for School Improvement

8

Designing better teacher compensation systems is difficult and is the subject of the previous chapters. Implementing new teacher compensation programs is also complex and is the topic of this chapter. Both research and anecdotal evidence in education and the private sector emphasize the imperative to attend to the entire process of development, design, implementation, and subsequent modification. The entire process is important because it is the key to building trust, and trust is a critical element of making new compensation systems work over the long haul.

After all, a new compensation structure means that the way in which people are paid will change. If given the choice, most workers would prefer not to alter how they are paid. Changing compensation structures in a way that gains worker support over time means convincing people to uphold something they might otherwise oppose. Trust between workers and managers certainly helps move such a process along. Thus, a process of development and implementation that slowly builds teacher commitment to a new compensation structure will probably be more successful if it can be based on a high level of trust. Moreover, because no new compensation design is perfect, companies—schools as well—must strengthen the strong points and eliminate or alter the elements that do not work. Trust also helps move along this part of the implementation process.

A core element for building trust is to involve all key parties—teachers, union leaders, administrators, the school board, parents, and the public—in the entire process. Although the *decision* to change compensation is largely a top management and system policy decision, that prerogative of the top stops immediately after the *decision* is made. From that point on, full involvement of all parties is crucial for making development, design, and implementation work and for getting the intended results (Jenkins et al., 1992; Zingheim & Schuster, 1995c).

In the policy brief we wrote for the Consortium for Policy Research in Education (Kelley & Odden, 1995), we outlined several principles that should guide development, design, and implementation of new teacher compensation structures. We include those principles in the appendix of this book and urge districts and states to abide by them as they enter this tricky domain. Changing teacher compensation structures is like playing golf on a course with narrow fairways and small greens, together with sand traps, doglegs, trees, and water hazards everywhere. Making mistakes is easy, and shooting par is difficult. Nevertheless, a solid round is possible. The principles in the appendix provide the broad framework for successfully navigating the teacher compensation change process.

In the remainder of this chapter, we provide practical and focused guidance for those who have decided to embark on the journey to alter teacher pay systems. In the next section, we summarize how compensation must be linked to the education agenda and how the process of designing the new compensation system can actually function as a communication strategy on both the need for education reform and its key processes and end results. In the section that follows, we suggest three specific activities that school systems can deploy to begin the teacher compensation change process. In the last section, we describe roles that different stakeholders in the education system—legislators, schools boards, administrators, unions and teachers, and the community—can play in changing teacher compensation.

Compensation and School Improvement

Teaching students to high-performance standards is currently the key education challenge. Students need advanced cognitive expertise for effective civic and workforce participation. To accomplish this challenge, schools and education systems must design new strategies for producing this higher level of performance. Just as most nonpublic organizations—

service providing and product making—struggle to improve quality, become more productive, and create a competitive edge, so also must schools redesign themselves to teach all but students with severe disabilities to high standards.

In Chapter 1, we outlined several key elements that have been evolving to accomplish this education challenge. They include rigorous curriculum content standards to guide the instructional program, new tests that indicate not only what students know but also what they can do with knowledge and basic skills, restructured governance and finance, and a training strategy to develop the skills and competencies teachers and schools need to accomplish these goals. When schools put all these elements into place, student performance rises (Newmann & Wehlage, 1995).

But good execution at the school level depends on individuals, mainly teachers. Teachers need to understand that students must be educated to much higher levels; then, teachers must determine how best to organize the jobs of teaching and the conditions of learning in their schools, how to teach the curriculum, and how to measure performance to produce those results. Even if schools "get it right" and outline the strategies that would produce the results desired, teachers still need the requisite knowledge, competencies, behaviors, and dispositions to effectively implement the strategy.

In other words, for good execution, the overall standards-based education reform strategy must be augmented with an intensive capacity-development strategy and a set of incentives—including a revised compensation structure—that rewards both the development of competencies and the production of results (Goertz et al., 1995; Odden, 1996). Zingheim and Schuster (1995c) argue that the pay structure can also be used both to reinforce these strategic elements and to further communication about them during the implementation process.

A pay structure can function as a communication device because people listen when their pay structure is changed. Thus, communicating what is involved in a new pay structure and why it is being implemented will very likely get a teacher's attention. Pay is so important to people, however, that communication must emphasize how the new pay system will function, why it was selected, and how it is connected to the strategic elements for implementing a standards-based reform; that is, it should provide information about both pay and strategy.

We suggest that recognition and reward structures that focus on capacity development and results are the most advantageous communication

and reinforcement strategies for schools attempting to teach students to high standards. A competency-based compensation plan would communicate the core capacities that teachers in the school need in order to teach a high-standards curriculum effectively to a diverse set of students and to engage in the school restructuring process. A contingency-based pay element would signal key activities in which the system wants teachers to engage, such as professional development and school improvement planning. A performance award would communicate the performances most valued by the school and signal that producing those results is valued by the system.

We have stated that compensation programs should follow and support broader system change, rather than lead such change. In the private sector, however, companies that have misread the market and that must implement strategic changes quickly have learned that leading the change effort by redesigning the compensation structure has some advantages (Zingheim & Schuster, 1995c). The changes get immediate employee attention because people are always interested in how they are paid. The pay changes also communicate a new set of values and directions—that new competencies are important and that results matter.

The point here is not to suggest that education should lead change with altered compensation structures. Education already has a decade of effort invested in standards-based education reforms that can be undergirded by a revised compensation structure that provides salary increases for developing new competencies and producing results (see Chapter 2).

The point is, however, to suggest that a new system of competency-based pay and performance awards could serve as a communication mechanism that change is needed and desirable, that new competencies will be required of all teachers, that much higher levels of student performance must be produced, that future pay levels will depend on these results, and that vigorous attention to these issues is required immediately. Such a pay system would signal urgency for the need to change, would show that it is in the enlightened self-interest of teachers to change toward the core requirements needed to successfully implement standards-based reform.

Again, we hope the urgency to change schools can precede new teacher compensation structures. And, we urge system leaders to develop the trust environment needed for successfully designing and implementing a new pay strategy. But, we also advise leaders—administrators, unions, and policymakers—to change the structure of teacher compensation as a part of standards-based education reform, school-based management, and

rising teacher professionalism. Education needs a dramatic new pay system, and leaders can confidently move forward on that agenda and not worry about incremental change. In the next section, we describe three practical activities that leaders can deploy to successfully launch the process of changing teacher compensation.

Three Transition Strategies

Designing and implementing a new teacher compensation structure should be considered a major innovation and should be administered through a successful change process. Zingheim and Schuster (1995d) suggest that three common change elements can be used to begin the transition to a new pay structure: readiness assessment, benchmarking, and piloting. These three elements can accomplish several purposes:

- Identify both current teacher, administrator, parent, and public understanding of the need to change and attitudes toward a new pay system so that transition strategies can start where "people are" and thus more successfully move them to where they need to be.
- Ensure that the transition strategies communicate the importance of new competencies, team management, high standards for all children, results orientation, and other important values that are part of any state or district's education reform efforts.
- Collect information and experience from other districts and organizations that have implemented changes in compensation.
- Provide opportunities to experiment with new forms of compensation in order to devise the best system for a state or district.

In general, the first step would be to create a design and implementation team and charge it with creating the process for development of a new teacher compensation structure, as well as, by a specific date, proposing such a new structure for the system to implement. This team should include union leaders, teachers, board members, administrators, and members of the public—that is, the major stakeholders for the education system. If the new system is a statewide structure, state policymakers also should be included. This team can then implement the following transition strategies.

Readiness Assessment

The first transition strategy is readiness assessment. A *readiness assessment* is a potentially powerful tool for beginning the transition to a new pay system. When administered well, a readiness assessment helps the implementation team in deciding what it must do to prepare the school system for a new pay system; it identifies how people might react to a new pay structure, the concerns teachers have, and the kinds of information the team will need to improve the district's readiness to implement a new approach.

Zingheim and Schuster (1995d) strongly suggest that a readiness assessment be viewed as a two-way communication mechanism. It provides an opportunity for the district, through the compensation design team, to tell teachers and other stakeholders why education change is needed; to communicate new values, priorities, and desired behaviors; and to diagnose where the district and its schools are and where they need to be. Likewise, the assessment asks teachers, administrators, and other stakeholders how to get from here to there on the education reform as well as the teacher compensation agendas.

Thus, the readiness assessment must be strategically constructed and strategically administered. Zingheim and Schuster (1995d) suggest that the compensation readiness assessment be administered after

- Core elements of the overall education reform strategy have been articulated and communicated
- Teachers' and administrators' roles in the new school organization are defined
- Shortcomings of the single salary schedule are outlined, and why the new pay structure supports the new education strategies (why the status quo is not an option) is explained
- The process for designing the new pay system is described, including how the data from the readiness assessment will be used

The goal of the readiness assessment is to communicate what the structure of the new pay system will include and to solicit teachers' and administrators' ideas on how to design the specifics of that structure. Thus, the readiness assessment should not simply ask teachers and administrators whether they want a new pay system and what kind of new pay system they want. The assessment should be very specific. If it includes a competency-based pay element, it should identify the areas in which

competencies are needed (e.g., curriculum and instruction, professional development, school management) and ask respondents to identify the specific competencies they would suggest for those areas—and perhaps even which are primary and which are secondary competencies. It could also ask for additional competencies that individuals might suggest in different topical areas.

If it includes a contingency-based pay element, it should ask whether ongoing professional development and school-site quality reviews are core tasks that should be rewarded or whether other activities should be valued and included in the pay structure.

If it includes a performance award, it could seek information on key performance areas (e.g., achievement, attendance, parental satisfaction), on key performance measures, and on rewards most valued (e.g., salary bonuses, opportunities for professional development, certificates, school improvement resources). If the performance awards include subschool team awards, the instrument should define clearly any subschool teams and delimit the types of results that would be eligible for an award.

The communication purpose of the readiness instrument is to describe to teachers and other stakeholders the general nature of the new compensation structure and to communicate that the design teams desire teacher and administrator input into all specifics of the new system, including value judgments where appropriate (e.g., ranking of different types of results, rewards most valued). The technical purpose is to gather the latter data as key information in designing the transition process and the new compensation structure itself.

Benchmarking

The second transition strategy is benchmarking. *Benchmarking* is the process of visiting other school districts and organizations to learn about processes, strategies, and compensation structures they have created. For the purpose of compensation change, the goal is to visit other school districts and even private-sector organizations that have changed compensation systems and learn about both design elements and implementation processes. For maximum applicability, the districts and organizations visited should be similar to one's own district.

Districts should prepare all individuals who embark on benchmarking trips. The message should be that this is not just a trip; it's an important research task critical to the teacher compensation change process. A general data collection instrument should identify the types of informa-

tion to be collected. People should be trained in how to interview their peers in these other organizations, how to record the data collected, and how to synthesize findings into a useful report.

The information collected should not be restricted to only the compensation system because the compensation structure should support overall system goals, management systems, and job structures. Thus, information should be collected on goals, curriculum standards, achievement tests, school and classroom organization, teacher and administrator roles, and the compensation structure. Data should include not only descriptive information on the above topics but also explanatory data—on why various strategies were selected and particularly on why specific pay structures were chosen and how they supported the overall goals and programmatic strategies of the district and school. The visiting team should also collect data on results and changes that were made from the original design. The team will want to know what worked, what didn't, and what effects both effective and ineffective compensation elements had. The visiting team should collect information on future directions and future changes planned. Finally, the team must have a plan for synthesizing the data collected, for teasing out the implications for the visiting district, and then for sharing the report not only with the compensation design team but also with other stakeholders in the district.

In short, the benchmarking exercises must be serious efforts. They should be conducted professionally. The reports should provide insights from other similar organizations and districts into what new compensation structures are possible, why they were selected in other places, what effects they produced, and what implications they have for the compensation redesign effort in one's own district.

Piloting

Piloting is the third transition strategy. States or districts should consider piloting new compensation efforts to test possible options in the exact context in which they will be used. In a sense, this process is more feasible when a state tries different versions of competency- and contingency-based pay, as well as performance awards across districts, but it also could be tried across schools in medium to large districts. Pilots should be full-fledged efforts that cover the entire process of readiness, development, design, implementation, and impact. For example, if a school within a district were to pilot competency-based pay, it should do a readiness assessment and some benchmarking, work on developing

standards of practice and assessment of actual practice, and implement the program. Districts could have different schools try different types of performance awards. For maximum use, each pilot effort should be evaluated to tease out all lessons learned, both process and technical design issues.

Finally, the results should be widely disseminated within the district or state. Indeed, secrecy of information at any stage of the process—initiation, readiness assessment, benchmarking, piloting, or implementation—will undermine trust. The best approach is to widely and openly disseminate information at all stages. The ultimate goal is to gather as much information as possible to enhance the chances of success for the final teacher compensation plan that is institutionalized. Gathering and sharing information is crucial to this process; it not only builds and maintains trust but also taps the intelligence of all people and thus maximizes the brain power devoted to designing the teacher compensation structure a district or state ultimately implements.

Stakeholder Roles

To improve the likelihood that a new compensation structure will have intended and lasting impacts, various stakeholders in the education system have several key roles to play. These roles must be carried out in concert with one another. The key to a successful compensation change process is collaboration throughout the entire process of development, design, implementation, evaluation, and modification. If collaboration breaks down, the plan itself is likely to break down.

State Policymakers

State legislators and other state policymakers have several key roles. The early experience of states embarking on compensation reform in the direction of "new pay" suggest two alternative strategies.

First, policymakers could develop *comprehensive education reform models* that are state driven and that incorporate standards-based reform, authentic assessment, professional development, preservice training, licensure, site-based management, and a combination of compensation reforms including competency pay, contingency pay, and group-based performance awards. Kentucky is an example of a state taking this approach.

The simplest form of competency pay might include bonuses and examination fees for teachers taking and passing national board certification. More elaborate forms would include the development by states, in collaboration with teacher associations, of a series of levels of competency, beginning with passage of a demanding professional licensure process, such as INTASC (see Chapter 1 for a discussion), and ending with national board certification.

Contingency pay could be designed to reward schools that undertook specific steps to better align teaching practices and organizational approaches to state standards of professional practice.

School-based performance awards could reward schools for improvements on the state's authentic assessment instrument or for improvements in other goals identified as important to creating an educated citizenry.

This type of comprehensive reform could be designed from the ground up, as in Kentucky, or could result from concerted efforts among state policymakers to create greater coherence among a variety of existing state education policies and to align compensation policies with these approaches.

Second, state policymakers could enact *enabling legislation* that encourages readiness assessment, benchmarking, piloting, and adoption of alternative compensation approaches designed at the local level. Such legislation may expand collective bargaining agreements to enable districts to negotiate broader education policy goals, as well as alternative approaches to compensation. With expanded ability to negotiate education policy as well as compensation, teachers will obtain the decision-making authority they need to be held reasonably accountable for school outcomes. In 1995, Colorado enacted this type of legislation, and local districts are designing and implementing a variety of new compensation plans.

Whichever strategy is chosen, states have a number of roles to play. First, they have a responsibility to "stay the course" over a long time period, at least 5 years, to give a new compensation program a chance to take hold and have its impacts. The history of state efforts to change teacher pay systems is quick abandonment—to design a program and then pull the funding after the second or third year. This tactic not only blunts any impact the program could have but also creates cynicism and skepticism among teachers, sabotaging levels of trust needed for future attempts at compensation reform to be successful. Particularly for a performance award, states must identify a "protected" source of funding,

such as a 1% budget set-aside, and maintain that funding source over a long time period.

Second, states could also stimulate, help design, and even partially finance a significant, ongoing capacity-development strategy. A standards-based education reform strategy depends on teachers and administrators developing a new array of professional competencies. That will only occur through a long-term and restructured professional development strategy (Corcoran, 1995; Darling-Hammond & McLaughlin, 1995). States could ensure funding of such an effort by creating a budget set-aside. For example, when Missouri enacted its education and school finance reform in 1993, it dedicated 2% of the state education budget to ongoing professional development. These monies have dramatically expanded professional development activities across the state. California, Michigan, and Vermont (Goertz et al., 1995) have taken different approaches to developing the teacher and school capacity required for their reform programs. The point is that states can strengthen capacity development strategies, which are key not only to education reform generally but also to competency- and performance-based pay strategies more particularly.

Third, states could create and administer a solid student assessment system that balances basic skills and knowledge with more advanced problem-solving skills. Policymakers must be aware that more authentic assessment strategies, such as portfolios, performance events, and open response questions, may require some trade-offs in levels of reliability in exchange for assessing thinking and reasoning skills that are thought to be important for the United States to achieve international competitiveness.

Fourth, states could create an independent state teaching standards board that, in addition to licensing teachers, would also create professional standards of teaching practice. Several states, led by Minnesota, have created such bodies within the past decade (Darling-Hammond et al., 1995). Although they have been created primarily as professional ways to *license* teachers, they function for new teachers in much the same way as the NBPTS functions for advanced, experienced teachers—describing teaching practice, providing standards to assess practice, and creating an assessment strategy for measuring a teacher's practice with respect to the standards. A key *new* role for such a state board would be to develop standards for teaching practice "between" those for beginning and those for advanced, accomplished teachers—standards that could be used for a competency-based pay plan.

Fifth, states could alter collective bargaining laws to permit (a) more teacher involvement in school management, (b) the various new approaches to teacher compensation discussed in this book, and even (c) new types of union contracts that focus on the teaching and learning environments in schools. Kerchner et al. (1997) expand on these issues in some detail. The point here is that several of the new teacher roles embodied in standards-based reform, including the design of site-based management and the scope of decisions made at the school site, could require changes in state collective bargaining laws. Further, because many of these changes also could be supported by new forms of teacher pay, those state laws that restrict pay to the single salary schedule would need to be altered to allow enactment of the ideas forwarded in this book.

Districts

Districts—school boards, district administrators, and school administrators—have crucial roles to play in teacher compensation reform. Research in the private sector suggests that one important role for management is to determine that changes in the pay structure are needed to improve organizational effectiveness (Jenkins et al., 1992; Zingheim & Schuster, 1995c). Once the decision to undertake compensation reform has been made, managers must work closely with those whose compensation will be affected to develop a reasonable, workable pay strategy.

In their second role, prior to considering changes in compensation, districts must develop a climate of trust, professionalism, and cooperation within the district. This task can be accomplished through a variety of strategies, including the use of interest-based bargaining, as opposed to the old industrial model. In addition, administrators should work toward strengthening the general conditions of work. The better the conditions of work in a school (e.g., teacher involvement in decision making, adequate facilities, availability of materials, safety), the more likely a new form of compensation can be implemented successfully. Conversely, the compensation strategy should be developed with the general conditions of work in mind. For example, skills assessment in a high-involvement school should incorporate teachers fully in the assessment process.

A third important role of the district is to commit resources to the design, development, communication, and implementation of the compensation plan. This commitment includes the allocation of resources, such as money for planning, professional development, and salary increments, as well as commitment of human resources. Personnel in districts

that have successfully implemented new compensation strategies are dedicated (both in job description and in spirit) to overcoming the numerous hurdles that will undoubtedly trip up reform efforts along the way. These district-level catalysts must work closely and energetically with teachers, school administrators, and community members, maintaining strong communication channels and an open mind throughout the process. The process itself should provide for full partnership and participation of teacher unions, administrators, school board members, and the public. This collaborative effort should begin with identification and agreement of broad education goals.

In their fourth role, districts must commit resources for the training of principal or peer evaluators of competencies, behaviors, or student outcomes, where appropriate. Training may also be needed to shift role expectations among district- and school-level administrators and teachers in the development of a school-based management approach. Any effort to make teachers accountable for results must also provide teachers with the knowledge, power, and information to focus resources and develop more effective approaches to student achievement. Teachers must have input on how schools expend their dollars, on the focus of professional development activities, and on education policies and approaches. This shift in roles and expectations is made easier through professional development focused on redefining roles and behaviors throughout the organization.

In their fifth role, districts must approach the compensation reform as an ongoing process. Persistence until the plan is perfected is the key to success. Most plans have initial bugs and are viewed with skepticism by some employees. Much of this skepticism may be overcome by a clear and continued commitment on the part of the district to identify problems that may arise and to revise the plan when needed (Kelley, 1996).

Teachers

Teachers and their unions also have crucial roles in the design, development, and implementation of new teacher compensation approaches. First, teacher union members must maintain a positive commitment to the academic goals of the school, good working relations among themselves, and a strategy of working with management to achieve key education goals. Both district administrators and teacher unions must work hand in hand to create the level of trust and cooperation needed to enable compensation reform to move forward in a productive way.

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Second, in many ways, teachers play the most critical role in compensation reform. Without the cooperation, professionalism, and commitment of teachers to make compensation reform work for them, the likelihood of success is very low. The current teacher compensation system is low-risk and predictable. The single salary schedule has provided a relatively low-paid profession (teaching) the assurance of regular and predictable salary increases. Furthermore, having worked in the system for some time, many have invested considerable time and money in obtaining education credits and degrees to move up through the system.

These teachers are likely to find proposals to abandon the single salary schedule objectionable and disconcerting. Thus, the level of trust between teachers and their unions and between labor and management that is required to reduce fears cannot be underestimated. Teachers must be willing to take the risk and to work together with administrators and union leadership to create a better system.

Third, unions could make a considerable contribution by continuing to reconceptualize what it means to be a union in a new system characterized by goals and standards at the top and substantial decision making by professional teachers in school sites. As labor and management reinvent their relationship, several collective bargaining structures and processes change, such as rules governing the application of districtwide agreements to individual schools (Shedd, 1988). Unions and local teacher contracts, including the district salary structure, can be reconceptualized in this new way of organizing and managing school sites within the education system (Kerchner et al., 1997).

Community Members

And finally, community members have roles in supporting experimentation with alternative compensation systems. In many of the districts and states experimenting with compensation reform, direct community interest and involvement was an important catalyst to initiating reform efforts (Kelley, 1996). But beyond providing pressure and input in the need to reform the compensation system, in each of these cases, community members provided constructive input into the design and development of alternative pay plans. In some cases, this input took the form of consulting expertise; in others, the business community provided start-up funds for the design and implementation of the new pay plan.

Community members must also show support for compensation systems that hold teachers accountable for results. If the community demands improvements in accountability and if schools respond with a new pay system that rewards improvements in student outcomes, the community should be willing to provide resources needed to maintain such a system over time.

Conclusions

Thus, the state, district, teachers, and community members all have potentially important roles to play in the transformation of teacher compensation from a traditional single salary schedule to a pay plan that combines elements of competency, contingency, and performance pay.

Table 8.1 provides a list of questions to consider in the development of such an alternative pay plan. Although not comprehensive, this list highlights a variety of issues that have been discussed throughout the book as key design issues.

As we have tried to show throughout the book, compensation reform is not a magic elixir that will cure all of education's ills. If carefully prescribed and taken in conjunction with other education reform strategies, however, it has the potential to strengthen the skills and competencies of the teaching workforce; to develop a more reflective, effective practice among teachers; and to focus teacher efforts on improving the most important student outcome measures. Furthermore, teachers may feel more satisfied with their work as schools provide clear directions for performance improvements and reward the most skilled teachers working collaboratively to create more effective school environments.

TABLE 8.1 Issues to Consider in Developing Alternative Pay Plans

General Questions

- Who will be involved in the development process?
- Will there be a transition to the new pay plan?
- How will the plan be funded?
- How will the plan be evaluated?

Competency Pay

- What competencies will be rewarded?
- Will all teachers be rewarded for obtaining the skill?
- Who will decide?
- How will competencies be developed and determined?
- How much will each competency be worth?
- How does one "retire" competencies?
- How does one add new competencies?
- How does competency pay relate to professional development activities?
- Will the school/district provide training in the competency?
- Should it be paid as a bonus or as part of base pay?
- Who will evaluate competencies and how?
- How often will they be reevaluated?
- Should competencies be school-specific, districtwide, or determined at the state or professional level?

Contingency Pay

- What behaviors will be rewarded?
- How will the behaviors be assessed?
- Should the pay be contingent on individual or whole-group behaviors?
- Should it be paid as a bonus or as part of base pay?

Performance Pay

- What outcomes will be rewarded?
- Will awards be provided to teams within schools or to entire schools? (NO QUOTAS!)

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TABLE 8.1 Continued

How does the plan provide meaningful and timely feedback to teachers?
What assessment will be used?
Will it be high stakes for students? If not, how can student cooperation be ensured?
How will variations among schools/districts, such as socioeconomic status, human and physical capital, student mobility, or funding be addressed?
Will performance improvements be based on cohorts or individual-level data?
How will the money be distributed? Only to teachers? Equally to all teachers and education professionals in each school? To classified school personnel?
What are the incentives/possibilities for gaming?
How much pay is needed to draw attention to the desired behaviors without overly diverting teachers from other unmeasured but desirable behaviors?

Appendix

Principles for Implementing Change in Teacher Compensation

Generally, notions of skill- or competency-based pay, pay-at-risk, and group-based performance awards are new to schools and education systems. Many other organizations, however, have been using these forms of pay for several years. This experience provides information on the design and development of these compensation approaches that addresses both technical and process issues. Interestingly, studies show that although the technical issues are obviously important, the process issues are more important (Jenkins et al., 1992). Thus, we first discuss the process and then the technical issues.

Process Principles

Ten key process principles contribute to the successful development, design, and implementation of skill- or competency-based pay, pay-at-risk, and group-based performance awards:

1. *Involvement of all key parties.* Involvement of especially those whose compensation is being affected is the preeminent principle for successfully changing compensation policies. Teacher unions, administrators, school boards, and the public should all be cen-

trally involved in the process of development, design, and implementation.

2. *Broad agreement on the most valued education results.* Compensation incentives help focus attention on important organizational goals. Thus, all parties—teachers, administrators, board members, parents, and the public—must agree on the results that are most valued.
3. *Comprehensive evaluation systems.* Sound mechanisms must be in place to assess (a) teacher knowledge and skill development in a skill-based pay system and (b) organizational products and processes to be rewarded through group-based performance awards. Such assessment mechanisms might include measures of student achievement, parent satisfaction, and teacher and administrator skills, knowledge, and performance.
4. *Adequate funding.* A lack of funding and a lack of a long-term funding commitment have been key to the downfall of many compensation reform efforts in education. Transition funds often are needed to move from the old to the new structure, and performance bonuses need a stable funding pool. Funds that are integrated within the school finance structure are less likely to be vulnerable to cuts than are those from a separate funding pool.
5. *Investments in ongoing professional development.* Such investments are key to skill- and competency-based pay structures and should be in the range of 2% to 3% of the operating budget.
6. *No quotas.* Quotas are the bane of many compensation changes. Although not everyone will want or need to master all competency areas, quotas should not be imposed. All schools meeting performance improvement targets should be rewarded, not just a fixed percentage of schools. Organizational excellence is dependent on consistent rewards for improvements in performance.
7. *General conditions of work.* The better the working conditions in a school (e.g., teacher involvement in decision making, adequate facilities, availability of materials, safety), the more likely a new form of compensation can be implemented successfully. A corollary to this principle is that the compensation system should be designed with general working conditions in mind. For example, skills assessment in a high-involvement school should incorporate teachers fully in the assessment process.

8. *Management maturity.* Administrators and the school board should have good working relations, and the administration should develop a history of working cooperatively with teachers and their unions to further system goals and objectives. Restructuring the salary schedule should occur in an environment characterized by interest-based bargaining, in which each party recognizes the interests and concerns of the other parties and all work together to design solutions that meet the needs of all parties in the local context.
9. *Labor maturity.* Teacher unions and their members must have positive commitment to the school's academic goals, good working relations among themselves, and a tradition of working with management toward education system key goals.
10. *Persistence.* Persist until the plan is "perfected." Most plans contain initial bugs to be worked out and are viewed with skepticism by some employees. Thus, persistence is needed to continue implementation, to revise the plan when problems are identified, and to encourage full participation to determine how the plan works when fully implemented.

General Technical Design Principles

Although technical design issues are numerous, the following three key principles should guide the design of any new compensation system:

1. *Fairness.* The system must be perceived as fair by everyone, including teachers and school board members.
2. *Comprehensibility.* If it is to provide an incentive for high performance or for knowledge and competency development, the system must be understood by all who are affected. This does not mean that it must be simplistic; it does mean that the elements of any new compensation plan and how salary increments or bonuses are earned must be readily comprehended.
3. *Incentive-behavior compatibility.* The new compensation system must provide incentives that lead to the appropriate types of teacher behaviors—that is, collegial work within schools, active learning of new skills and competencies, and deployment of energies to produce desired results for all students.

Competency-Based Pay Principles

The following two principles apply specifically to *competency-based pay components* of compensation plans:

1. *Clear, specific, and measurable skill blocks.* The skills should be directly related to the needs of a particular school or school system and be provided in written form with clear standards. Such skill blocks and rubrics could be designed locally or could use the development of standards of the Interstate New Teacher Assessment and Support Consortium (INTASC) and the National Board for Professional Teaching Standards (NBPTS). Each has written documents about 25 pages long that describe the knowledge and skills needed for licensure or certification in several teaching areas.
2. *An objective, sound, and credible assessment system to determine skill attainment.* Teachers and administrators should be involved in skill assessment done locally. In the long term, core curriculum and instruction skill blocks should probably be assessed by a state or national teaching standards board, as is done in many other professions (Kelley & Taylor, 1995). These assessments should be set according to an external professional standard.

Contingency-Based Pay Principles

The following two principles should guide development of *contingency-based pay components:*

1. *Identification of tasks critical to a district's top education goals and its reform effort.*
2. *Selection of one or two tasks that both teachers and the district can readily implement.* Examples are ongoing training and an ongoing quality review.

Performance Award Principles

The following seven principles should guide development of *performance awards:*

1. *Provide awards only on a group (probably a whole school), not an individual, basis.* This principle is important because it reflects the collaborative nature of teaching and schools. Usually, this means everyone in a school—professional and classified staff—is eligible.
2. *Be very clear about what performance is most valued.* Examples are student achievement, student/teacher attendance, and parent satisfaction. The system will get more of what is in the performance measure and less of other system outcomes. Thus, if the system focuses on achievement, it should incorporate a full range of achievement measures over a range of subject areas.
3. *Base the performance standard for each school on improvements over some historic base.* Although the specific standard should reflect local context, the improvement targets should be revisited each year and may be based on 2 or more years of data. The core goal for all schools should be improvement of student performance to specific levels by a specific target date. The performance assessment should recognize changes in the student population, such as student mobility, that may impede accurate measures of progress.
4. *Provide an integrated and protected funding pool.* This pool should make all schools that meet or exceed performance targets eligible for the performance award. When performance award funds are integrated into the entire fund structure, they are a less convenient target for budget cuts. Stability in performance award funding is essential for the awards to serve as incentives for future performance improvements.
5. *Provide awards that are valued by teachers.* Such awards could be salary enhancements, or dollars to be used, for example, for school improvement activities, for expanding technology, for additional opportunities for professional development, and as a venture capital pool for developing innovative practices.
6. *If the award is a salary award, provide it as a bonus, not as an addition to base pay.* The award could be a percentage of each person's salary or a specific dollar amount; the percentage or dollar amount could vary according by staffing category—classified, professional, principal. The amount should be sufficient to be a relevant incentive and should be paid as a bonus to provide a continuing incentive for high performance each year. The amounts also should be part of retirement pay.

7. *Provide teachers professional control over the work environment.* If teachers are to be held responsible for student results, they must have the capacity to improve organizational effectiveness. Knowledge, power, and information should be devolved to teachers so that they have the capacity to make the changes needed to create performance improvements (Mohrman et al., 1994).

References

Adams, J. (1993). School finance reform and systemic school change: Reconstituting Kentucky's public schools. *Journal of Education Finance, 18*, 318-345.

Bacharach, S. B., & Conley, S. C. (1986). Educational reform: A managerial agenda. *Phi Delta Kappan, 67*(9), 641-648.

Bacharach, S. B., Conley, S. C., & Shedd, J. B. (1990). Evaluating teachers for career awards and merit pay. In J. Millman & L. Darling-Hammond (Eds.), *The new handbook of teacher evaluation: Assessing elementary and secondary school teachers* (pp. 133-146). Newbury Park, CA: Sage.

Bacharach, S. B., Lipsky, D. B., & Shedd, J. B. (1984). *Paying for better teaching: Merit pay and its alternatives.* Ithaca, NY: Organizational Analysis and Practice.

Ball, D. L., Cohen, D. K., Peterson, P. L., & Wilson, S. M. (1994, April). *Understanding state efforts to reform teaching and learning: Learning from teachers about learning to teach.* Paper presented at the annual meeting of the American Educational Research Association, New Orleans.

Baugh, W. H., & Stone, J. A. (1982). *Mobility of wage equilibrium in the educator labor market.* Eugene, OR: Center for Educational Policy and Management.

Bellon, E. C., Bellon, J. J., Blank, M-A., Brian, D. J. G., & Kershaw, C. A. (1989, March). *Alternative incentive programs for school-based reform.* Paper presented at the annual meeting of the American Educational Research Association, San Francisco.

Blinder, A. S. (Ed.). (1990). *Paying for productivity: A look at the evidence.* Washington, DC: Brookings Institution.

Bradley, A. (1994, April 20). Pioneers in professionalism. *Education Week, 13*(30), 18-27.

Bransford, J., Goldman, S., & Vye, N. (1991). Making a difference in people's abilities to think: Reflections on a decade of work and some hopes for the future. In L. Okagaki & R. J. Sternberg (Eds.), *Directions of development: Influence on children's thinking* (pp. 147-180). Hillsdale, NJ: Lawrence Erlbaum.

Brophy, J., & Good, T. (1986). Teacher behaviors and student achievement. In M. Wittrock (Ed.), *Handbook of research on teaching* (3rd ed., pp. 328-375). New York: Macmillan.

Bruer, J. T. (1993). *Schools for thought: A science of learning in the classroom.* Cambridge, MA: MIT Press.

Carnegie Forum on Education and the Economy. (1986). *A nation prepared: Teachers for the 21st century.* New York: Carnegie Corporation.

Carter, P. (1992). Becoming the "new women": The equal rights campaigns of New York City schoolteachers, 1900-1920. In R. J. Altenbaugh (Ed.), *The teacher's voice: A social history of teaching in twentieth-century America* (pp. 40-58). London: Falmer.

Clardy, A. (1988). *Compensation systems and school effectiveness: Merit pay as an incentive for school improvement.* College Park: University of Maryland. (ERIC Document Reproduction Service No. ED 335 789)

Clotfelter, C. T., & Ladd, H. F. (1996). *Recognizing and rewarding success in public schools.* In H. F. Ladd (Ed.), *Holding schools accountable: Performance-based reform in education* (pp. 23-63). Washington, DC: Brookings Institution.

Cohen, D., & Ball, D. L. (Eds.). (1990). [Entire issue]. *Educational Evaluation and Policy Analysis, 12*(3).

Cohen, D. K. (1990). A revolution in one classroom: The case of Mrs. Oublier. *Educational Evaluation and Policy Analysis, 12,* 327-345.

Cohen, D. K. (1996). Rewarding teachers for student performance. In S. H. Fuhrman & J. A. O'Day (Eds.), *Rewards and reform: Creating educational incentives that work* (pp. 60-112). San Francisco: Jossey-Bass.

Cohen, D. K., McLaughlin, M., & Talbert, J. (Eds.). (1993). *Teaching for understanding: Challenges for policy and practice.* San Francisco: Jossey-Bass.

Cohen, M. (1983). Instructional, management, and social conditions in effective schools. In A. Odden & L. D. Webb (Eds.), *School finance*

and school improvement: Linkages for the 1980s (pp. 17-50). Cambridge, MA: Ballinger.

Conley, S. C. (1991). Review of research on teacher participation in school decision making. In G. Grant (Ed.), *Review of research in education* (Vol. 17, pp. 225-266). Washington, DC: American Educational Research Association.

Conley, S. C. (1994). Teacher compensation: From merit pay and career ladders to knowledge-based pay. In L. Ingvarson & R. Chadbourne (Eds.), *Valuing teachers' work: New directions in performance appraisal* (pp. 46-69). Victoria, Australia: Australian Council for Educational Research Limited.

Conley, S. C., & Bacharach, S. B. (1990). From school-site management to participatory school-site management. *Phi Delta Kappan, 71,* 539-544.

Conley, S. C., & Odden, A. (1995). Linking teacher compensation to teacher career development: A strategic examination. *Educational Evaluation and Policy Analysis, 17,* 253-269.

Conley, S. C., Schmidle, T., & Shedd, J. B. (1988). Teacher participation in the management of school systems. *Teachers College Record, 90,* 259-280.

Corcoran, T. B. (1995, June). *Helping teachers teach well: Transforming professional development* (RB-16). New Brunswick, NJ: Rutgers University, Consortium for Policy Research in Education.

Cornett, L. M. (1994, April). Ups and downs of incentive programs. *Southern Regional Education Board Career Ladder Clearinghouse,* pp. 1-2.

Cumming, C. M. (1994). Incentives that really do motivate. *Compensation and Benefits Review, 26*(3), 38-40.

Darling-Hammond, L. (1993). Reframing the school reform agenda: Developing capacity for school transformation. *Phi Delta Kappan, 74,* 752-761.

Darling-Hammond, L. (1994, November). *National Commission on Teaching and America's Future: Briefing paper.* New York: Columbia University Teachers College.

Darling-Hammond, L. (1996). Restructuring schools for high performance. In S. H. Fuhrman & J. A. O'Day (Eds.), *Rewards and reform: Creating educational incentives that work* (pp. 144-192). San Francisco: Jossey-Bass.

Darling-Hammond, L., & McLaughlin, M. W. (1995). Policies that support professional development in an era of reform. *Phi Delta Kappan, 76,* 597-604.

Darling-Hammond, L., Wise, A. E., & Klein, S. P. (1995). *A license to teach: Building a profession for 21st century schools.* Boulder, CO: Westview.

David, J. (1994). School-based decision making: Kentucky's test of decentralization. *Phi Delta Kappan, 75,* 706-712.

Educational Research Service. (1978). *Methods of scheduling salaries for teachers.* Arlington, VA: Author.

Elmore, R. F. (1996). Getting to scale with good educational practice. *Harvard Educational Review, 66,* 1-26.

English, F. (1992). History and critical issues of educational compensation systems. In L. Frase (Ed.), *Teacher compensation and motivation* (pp. 3-25). Lancaster, PA: Technomic.

Ferris, J., & Winkler, D. (1986). Teacher compensation and the supply of teachers. *Elementary School Journal, 86,* 389-404.

Firestone, W. (1994). Redesigning teacher salary systems for education reform. *American Educational Research Journal, 31,* 549-574.

Firestone, W. A., & Pennell, J. R. (1993). Teacher commitment, working conditions, and differential incentive policies. *Review of Educational Research, 63,* 489-525.

Freiberg, H. J., & Knight, S. L. (1991). Career ladder programs as incentives for teachers. In S. C. Conley & B. S. Cooper (Eds.), *The school as a work environment: Implications for reform* (pp. 204-235). Needham Heights, MA: Allyn & Bacon.

Fuhrman, S. (Ed.). (1993). *Designing coherent education policy.* San Francisco: Jossey-Bass.

Fuller, W. E. (1982). *The old country school: A story of rural education in the middle west.* Chicago: University of Chicago Press.

Galbraith, J. R., & Lawler, E. E., III. (1993). *Organizing for the future: The new logic for managing complex organizations.* San Francisco: Jossey-Bass.

Gardner, H., & Boix-Mansilla, V. (1994). Teaching for understanding in the disciplines—and beyond. *Teachers College Record, 96,* 198-218.

Geber, B. (1992, June). Saturn's grand experiment. *Training,* pp. 27-35.

Goertz, M., Floden, R., & O'Day, J. (1995). *Evaluating education reform: Systemic reform: Vol. 1. Findings and conclusions.* New Brunswick, NJ: Rutgers University, Consortium for Policy Research in Education.

Gold, S. D. (Ed.). (1995). *The fiscal crisis of the states: Lessons for the future.* Washington, DC: Georgetown University Press.

Goodlad, J. I. (1984). *A place called school.* New York: McGraw-Hill.

Hall, G. E., & Caffarella, E. P. (1996). *First year implementation of the Douglas County, Colorado, school district performance pay plan for teachers.* Greeley: University of Northern Colorado, School of Education.

Hammer, M., & Champy, J. (1993). *Reengineering the corporation.* New York: Harper Business.

Hanushek, E. A. (1994). *Making schools work: Improving performance and controlling costs.* Washington, DC: Brookings Institution.

Harp, L. (1995, April 26). Kentucky schools put on the line in bonus budgeting. *Education Week, 14*(31), 1, 9.

Harris, L., & Associates. (1995). *The Metropolitan Life survey of the American teacher, 1984-1995: Old problems, new challenges.* New York: Metropolitan Life Insurance Company.

Hart, A. W. (1994). Work feature values of today's and tomorrow's teachers: Work redesign as an incentive and school improvement policy. *Educational Evaluation and Policy Analysis, 16,* 458-473.

Hart, A. W. (1995). Reconceiving school leadership: Emergent views. *Elementary School Journal, 96,* 9-28.

Hart, A. W., & Murphy, M. J. (1990). New teachers react to redesigned teacher work. *American Journal of Education, 98,* 224-250.

Hatry, H. P., Greiner, J. M., & Ashford, B. G. (1994). *Issues and case studies in teacher incentive plans* (2nd ed.). Washington, DC: Urban Institute Press.

Heneman, H. G., III, & Schwab, D. P. (1979). Work and rewards theory. In D. Yoder & H. G. Heneman, Jr. (Eds.), *ASPA handbook of personnel and industrial relations.* Washington, DC: Bureau of National Affairs.

Heneman, H. G., III, Schwab, D. P., Fossum, J. A., & Dyer, L. (1989). *Personnel/human resource management* (4th ed.). Burr Ridge, IL: Irwin.

Heneman, H. G., III, & Young, I. P. (1991). Assessment of a merit pay program for school district administrators. *Public Personnel Management, 21*(1), 35-47.

Heneman, R. L. (1992). *Merit pay: Linking pay increases to performance ratings.* Reading, MA: Addison-Wesley.

Heneman, R. L., & Von Hippel, C. (1995). Balancing group and individual rewards: Rewarding individual contributions to the team. *Compensation and Benefits Review, 27*(4), 63-68.

Huberman, M. (1995). Professional careers and professional development: Some intersections. In T. R. Guskey & M. Huberman (Eds.), *Professional development in education: New paradigms and practices* (pp. 193-224). New York: Teachers College Press.

Interstate New Teacher Assessment and Support Consortium. (1995a). *Model standards for beginning teacher licensing and development: A resource for state dialogue.* Washington, DC: Council of Chief State School Officers.

Interstate New Teacher Assessment and Support Consortium. (1995b). *Model standards in mathematics for beginning teacher licensing and development: A resource for state dialogue.* Washington, DC: Council of Chief State School Officers.

Jacobson, S. L. (1987). Merit pay and teaching as a career. In K. Alexander & D. H. Monk (Eds.), *Attracting and compensating America's teachers* (pp. 161-177). Eighth annual yearbook of the American Educational Finance Association, Cambridge, MA: Ballinger.

Jenkins, G. D., Jr., Ledford, G. E., Jr., Gupta, N., & Doty, D. H. (1992). *Skill-based pay: Practices, payoffs, pitfalls, and prescriptions.* Scottsdale, AZ: American Compensation Association.

Johnson, S. M. (1986). Incentives for teachers: What motivates, what matters? *Educational Administration Quarterly, 22*(3), 54-79.

Katz, M. B. (1987). *Reconstructing American education.* Cambridge, MA: Harvard University Press.

Katzenbach, J. R., & Smith, D. K. (1993). *The wisdom of teams: Creating the high-performance organization.* Boston: Harvard Business School Press.

Kelley, C. (1996). Implementing teacher compensation reform in public schools: Lessons from the field. *Journal of School Business Management, 8*(1), 37-54.

Kelley, C., & Odden, A. (1995). *New ideas for reinventing teacher compensation.* Madison: University of Wisconsin, Consortium for Policy Research in Education.

Kelley, C., & Taylor, C. H. (1995). *Compensation and skill development in four professions and implications for the teaching profession.* Madison: University of Wisconsin, Consortium for Policy Research in Education.

Kennedy, C. W., Fossum, J. A., & White, B. J. (1983). An empirical comparison of within-subjects and between-subjects expectancy theory models. *Organizational Behavior and Human Performance, 32*, 124-143.

Kentucky Department of Education. (1995, February). *Kentucky teacher.* Frankfort, KY: Author.

Kentucky Institute for Education Research. (1995, January). *An independent evaluation of the Kentucky Instructional Results Information System (KIRIS)* (conducted by the Evaluation Center, Western Michigan University). Frankfort, KY: Author.

Kerchner, C. T., Koppich, J. E., & Weeres, J. G. (1997). *United mind workers: Representing teaching in the knowledge society.* San Francisco: Jossey-Bass.

Knapp, M. S., Shields, P. M., & Turnbull, B. J. (1995). Academic challenge in high poverty classrooms. *Phi Delta Kappan, 76,* 770-776.

Kohn, A. (1993). *Punished by rewards: The trouble with gold stars, incentive plans, A's, praise, and other bribes.* Boston: Houghton Mifflin.

Lawler, E. E., III. (1971). *Pay and organizational effectiveness: A psychological view.* New York: McGraw-Hill.

Lawler, E. E., III. (1973). *Motivation in work organizations.* Monterey, CA: Brooks/Cole.

Lawler, E. E., III. (1981). *Pay and organizational development.* Reading, MA: Addison-Wesley.

Lawler, E. E., III. (1986). *High-involvement management.* San Francisco: Jossey-Bass.

Lawler, E. E., III. (1990). *Strategic pay: Aligning organizational strategies and pay systems.* San Francisco: Jossey-Bass.

Lawler, E. E., III. (1992). *The ultimate advantage.* San Francisco: Jossey-Bass.

Lawler, E. E., III. (1995). The new pay: A strategic approach. *Compensation and Benefits Review, 27*(4), 14-22.

Lawler, E. E., III, Mohrman, S. A., & Ledford, G. E., Jr. (1995). *Creating high performance organizations.* San Francisco: Jossey-Bass.

Ledford, G. E., Jr. (1991). The design of skill-based pay plans. In M. Rock & L. Berger (Eds.), *Handbook of compensation* (pp. 199-217). New York: McGraw-Hill.

Ledford, G. E., Jr. (1995a). Designing nimble reward systems. *Compensation and Benefits Review, 27*(4), 46-54.

Ledford, G. E., Jr. (1995b). Paying for the skills, knowledge, and competencies of knowledge workers. *Compensation and Benefits Review, 27*(4), 55-62.

Ledford, G. E., Jr., Lawler, E. E., III, & Mohrman, S. A. (1995). Reward innovations in Fortune 1000 companies. *Compensation and Benefits Review, 27*(4), 76-80.

Lehrer, R. (1993). Authors of knowledge: Patterns of hypermedia design. In S. P. Lajoie & S. J. Derry (Eds.), *Computers as cognitive tools* (pp. 197-227). Hillsdale, NJ: Lawrence Erlbaum.

Lieberman, A., & Miller, L. (Eds.). (1991). *Staff development for education in the '90s* (2nd ed.). New York: Teachers College Press.

Lipsky, D. B., & Bacharach, S. B. (1983). The single salary schedule vs. merit pay: An examination of the debate. *Collective Bargaining Quarterly, 11*(4), 1-11.

Little, J. W. (1982). Norms of collegiality and experimentation: Workplace conditions of school success. *American Educational Research Journal, 19*, 325-340.

Little, J. W. (1993). Teachers' professional development in a climate of educational reform. *Educational Analysis and Policy Analysis, 15*, 129-152.

Little, J. W., & McLaughlin, M. W. (Eds.). (1993). *Teachers' work: Individuals, colleagues, and contexts*. New York: Teachers College Press.

Locke, E. A. (1968). Toward a theory of task motivation and incentives. *Organizational Behavior and Human Performance, 3*, 157-189.

Lortie, D. C. (1975). *Schoolteacher: A sociological study*. Chicago: University of Chicago Press.

Louis, K. S., Marks, H. M., & Kruse, S. (1995). *Teachers' professional community in restructuring schools*. Paper prepared for the Center on Organization and Restructuring Schools. Madison: University of Wisconsin, Wisconsin Center for Education Research.

Malen, B., Murphy, M. J., & Hart, A. W. (1987). Restructuring teacher compensation systems: An analysis of three incentive strategies. In K. Alexander & D. H. Monk (Eds.), *Attracting and compensating America's teachers* (pp. 91-142) (Eighth annual yearbook of the American Educational Finance Association). Cambridge, MA: Ballinger.

Manski, C. F. (1987). Academic ability, earnings, and the decision to become a teacher: Evidence from the National Longitudinal Study of the High School Class of 1972. In D. A. Wise (Ed.), *Public sector payrolls* (pp. 291-316). Chicago: University of Chicago Press.

Marks, H. M., & Louis, K. S. (1995). *Does teacher empowerment affect the classroom? The implications of teacher empowerment for teachers' instructional practice and student academic performance*. Paper prepared for the Center on Organization and Restructuring Schools. Madison: University of Wisconsin, Wisconsin Center for Education Research.

McAdams, J. L. (1995). Design, implementation, and results: Employee involvement and performance reward plans. *Compensation and Benefits Review, 27*(2), 45-55.

McGregor, D. M. (1992). The human side of the enterprise. In J. M. Shafritz & J. S. Ott (Eds.), *Classics of organization theory* (3rd ed., pp. 174-180). Pacific Grove, CA: Brooks/Cole. (Original work published 1957)

McLaughlin, M. W., & Yee, S. M-L. (1988). School as a place to have a career. In A. Lieberman (Ed.), *Building a professional culture in schools* (pp. 23-44). New York: Teachers College Press.

Mento, A. J., Steel, R. P., & Karren, R. J. (1987). A meta-analytic study of the effects of goal setting on task performance: 1966-1984. *Organizational Behavior and Human Decision Processes, 39*, 52-83.

Miles, K. H. (1996). *Rethinking school resources in high performing schools.* Madison: University of Wisconsin, Consortium for Policy Research in Education.

Mohrman, A. M. (1989). *Deming versus performance appraisal: Is there a resolution?* Los Angeles: University of Southern California, School of Business Administration, Center for Effective Organizations.

Mohrman, A., Mohrman, S. A., & Odden, A. (1996). Aligning teacher compensation with systemic school reform: Skill-based pay and group-based performance awards. *Educational Evaluation and Policy Analysis, 18*, 51-71.

Mohrman, S. A., Cohen, S. G., & Mohrman, A. M., Jr. (1995). *Designing team-based organizations: New forms for knowledge work.* San Francisco: Jossey-Bass.

Mohrman, S. A., & Lawler, E. E., III. (1996). Motivation for school reform. In S. H. Fuhrman & J. A. O'Day (Eds.), *Rewards and reform: Creating educational incentives that work* (pp. 115-143). San Francisco: Jossey-Bass.

Mohrman, S. A., Lawler, E. E., III, & Mohrman, A. M., Jr. (1992). Applying employee involvement in schools. *Education Evaluation and Policy Analysis, 14*, 347-360.

Mohrman, S. A., Wohlstetter, P., & Associates (Eds.). (1994). *School-based management: Organizing for high performance.* San Francisco: Jossey-Bass.

Murnane, R. J. (1983). Quantitative studies of effective schools: What have we learned? In A. Odden & L. D. Webb (Eds.), *School finance and school improvement: Linkages for the 1980s* (pp. 193-209). Cambridge, MA: Ballinger.

Murnane, R. J., & Cohen, D. K. (1986). Merit pay and the evaluation problem: Why most merit pay plans fail and a few survive. *Harvard Educational Review, 56,* 1-17.

Murnane, R. J., Singer, J. D., Willett, J. B., Kemple, J. J., & Olsen, R. J. (1991). *Who will teach? Policies that matter.* Cambridge, MA: Harvard University Press.

Murphy, J., & Beck, L. G. (1995). *School-based management as school reform: Taking stock.* Thousand Oaks, CA: Corwin.

National Board for Professional Teaching Standards. (1994a). *Adolescence and young adulthood/mathematics standards for National Board Certification.* Detroit, MI: Author.

National Board for Professional Teaching Standards. (1994b). *Early adolescence/English language arts standards for National Board Certification.* Detroit, MI: Author.

National Board for Professional Teaching Standards. (1994c). *Early adolescence/generalist standards for National Board Certification.* Detroit, MI: Author.

National Board for Professional Teaching Standards. (1994d). *Early childhood/generalist standards for National Board Certification.* Detroit, MI: Author.

National Board for Professional Teaching Standards. (1995, January). *Press release packet.* Detroit, MI: Author.

National Center for Education Statistics. (1995a). *The condition of education, 1995.* Washington, DC: U.S. Department of Education.

National Center for Education Statistics. (1995b). *Digest of education statistics, 1995.* Washington, DC: U.S. Department of Education.

National Commission on Excellence in Education. (1983). *A nation at risk: The imperative for educational reform.* Washington, DC: U.S. Department of Education.

National Council of Teachers of Mathematics (NCTM). (1989). *Curriculum and evaluation standards for school mathematics.* Reston, VA: Author.

National Council of Teachers of Mathematics (NCTM). (1991). *Professional standards for the teaching of mathematics.* Reston, VA: Author.

Nelson, F. H., & Schneider, K. (1995). *Survey and analysis of salary trends, 1995.* Washington, DC: American Federation of Teachers Research Department.

Newmann, F., & Associates. (1996). *School restructuring and student learning.* San Francisco: Jossey-Bass.

Newmann, F., & Wehlage, G. (1993). Standards for authentic instruction. *Educational Leadership, 50*(7), 8-12.

Newmann, F., & Wehlage, G. (1995). *Successful school restructuring.* Madison: University of Wisconsin, Wisconsin Center for Education Research.

Newmann, F. M., Marks, H. M., & Gamoran, A. (1995). *Authentic pedagogy and student performance.* Paper prepared for the Center on Organization and Restructuring Schools. Madison: University of Wisconsin, Wisconsin Center for Education Research.

Odden, A. (1996). Incentives, school organization, and teacher compensation. In S. H. Fuhrman & J. A. O'Day (Eds.), *Rewards and reform: Creating educational incentives that work* (pp. 226-256). San Francisco: Jossey-Bass.

Odden, A., & Clune, W. (1995a). *Educational productivity and organizing for higher performance.* Madison: University of Wisconsin, Consortium for Policy Research in Education.

Odden, A., & Clune, W. (1995b). Improving educational productivity and school finance. *Educational Researcher, 24*(9), 6-10, 22.

Odden, A., & Clune, W. (1995c). *School finance structures: Aging structures in need of reform.* Madison: University of Wisconsin, Consortium for Policy Research in Education.

Odden, A., & Conley, S. (1992). Restructuring teacher compensation systems. In A. Odden (Ed.), *Rethinking school finance: An agenda for the 1990s* (pp. 41-96). San Francisco: Jossey-Bass.

Odden, A., Monk, D., Nakib, Y., & Picus, L. (1995). The story of the educational dollar: No academy awards and no fiscal smoking guns. *Phi Delta Kappan, 77,* 161-168.

Odden, A., & Odden, E. (1994, April). *Applying the high involvement framework to local management of schools in Victoria, Australia.* Paper presented at the annual meeting of the American Educational Research Association, New Orleans.

Odden, A., & Odden, E. (1995). *Educational leadership for America's schools.* New York: McGraw-Hill.

Odden, A., Wohlstetter, P., & Odden, E. (1995). Key issues in effective school-based management. *School Business Affairs, 61*(5), 4-16.

Odden, E., & Wohlstetter, P. (1995). Strategies for making school based management work. *Educational Leadership, 52*(5), 32-36.

O'Dell, C. (1987). *People, performance, and pay.* Houston, TX: American Productivity Center.

Pechman, E. M., & LaGuarda, K. G. (1993). *Status of new curriculum framework standards, assessment, and monitoring systems.* Washington, DC: Policy Studies Associates.

Pfeffer, J. (1994, September). *Managing human resources for competitive advantage: Barriers to change.* Paper presented at the Managing Human Resources in the 1990s and Beyond: Is the Workplace Being Transformed? conference, sponsored by the Industrial Relations Centre, Queen's University, Ontario, Canada.

Protsik, J. (1996). History of teacher pay and incentive reforms. *Journal of School Leadership, 6*(2).

Purkey, S. C., & Smith, M. S. (1983). Effective schools: A review. *Elementary School Journal, 83,* 427-452.

Resnick, L. B. (1994). Performance puzzles. *American Journal of Education, 102,* 511-526.

Resnick, L. B., & Klopfer, L. E. (Eds.). (1989). *Toward the thinking curriculum: Current cognitive research.* Washington, DC: Association for Supervision and Curriculum Development.

Richards, C. E., Fishbein, D., & Melville, P. (1993). Cooperative performance incentives in education. In S. Jacobson & R. Berne (Eds.), *Reforming education: The emerging systemic approach* (pp. 28-42). Thousand Oaks, CA: Corwin.

Richards, C. E., & Sheu, T. M. (1992). The South Carolina School Incentive Reward Program: A policy analysis. *Economics of Education Review, 11,* 71-86.

Richardson, J. (1994, May 25). Virginia district to give bonuses to top-rated teachers. *Education Week, 13,* 13.

Richardson, J. G., & Hatcher, B. W. (1983). The feminization of public school teaching, 1870-1920. *Work and Occupations, 10,* 81-99.

Robertson, P. J., Wohlstetter, P., & Mohrman, S. A. (1995). Generating curriculum and instructional innovations through school-based management. *Educational Administration Quarterly, 31,* 375-404.

Rosen, S., & Flyer, F. (1994). *The new economics of teachers and education. Chicago: University of Chicago, Department of Economics.*

Rosenholtz, S. J. (1989). *Teachers' workplace: The social organization of schools.* White Plains, NY: Longman.

Rosenshine, B., & Stevens, R. (1986). Teaching functions. In M. Wittrock (Ed.), *Handbook of research on teaching* (pp. 376-391). New York: Macmillan.

Rothman, R. (1995). *Measuring up.* San Francisco: Jossey-Bass.

Rothman, S. M. (1978). *Woman's proper place: A history of changing ideals and practices, 1870 to the present.* New York: Basic Books.

Rothstein, R., & Miles, K. H. (1995). *Where's the money gone?* Washington, DC: Economic Policy Institute.

Rowan, B. (1996). Standards as incentives for instructional reform. In S. H. Fuhrman & J. A. O'Day (Eds.), *Rewards and reform: Creating educational incentives that work* (pp. 195-225). San Francisco: Jossey-Bass.

Runge, C. F. (1984). Institutions and the free ride: The assurance problem in collective action. *Journal of Politics, 46*(1), 154-181.

Schlechty, P. C. (1989). Career ladders: A good idea going awry. In T. J. Sergiovanni & J. H. Moore (Eds.), *Schooling for tomorrow: Directing reforms to issues that count* (pp. 356-376). Needham Heights, MA: Allyn & Bacon.

Schlechty, P. C., & Vance, V. S. (1983). Recruitment, selection, and retention: The shape of the teaching force. *Elementary School Journal, 83,* 469-487.

Scholtes, P. R. (1994a). *Alternatives to performance appraisal: Twelve guidelines for creating "debundled" policies.* Madison, WI: Scholtes Seminars and Consulting.

Scholtes, P. R. (1994b). *Performance without appraisal.* Madison, WI: Scholtes Seminars and Consulting.

Scholtes, P. R. (1995). *Dr. Deming's vision of the organization.* Madison, WI: Scholtes Seminars and Consulting.

Schuster, J. R., & Zingheim, P. (1992). *The new pay: Linking employee and organizational performance.* Lexington, MA: Lexington Books.

Senge, P. M. (1990). *The fifth discipline: The art and practice of the learning organization.* New York: Doubleday Currency.

Sharpes, D. K. (1987). Incentive pay and the promotion of teaching proficiencies. *Clearing House, 60,* 406-408.

Shedd, J. B. (1988). Teacher unions: Participation through bargaining. In S. B. Bacharach (Ed.), *Educational reform: Making sense of it all* (pp. 92-102). Needham Heights, MA: Allyn & Bacon.

Shedd, J. B., & Bacharach, S. B. (1991). *Tangled hierarchies: Teachers as professionals and the management of schools.* San Francisco: Jossey-Bass.

Shephard, L. A., & Smith, M. L. (1989). *Flunking grades: Research and policies on retention.* London: Falmer.

Shulman, L. (1986). Those who understand: Knowledge growth in teaching. *Educational Researcher, 15,* 4-14.

BEST COPY AVAILABLE

Shulman, L. (1987). Knowledge and teaching: Foundations of the new reform. *Harvard Educational Review, 57,* 1-22.

Sizer, T. (1992). *Horace's school: Redesigning the American high school.* Boston: Houghton Mifflin.

Smith, M. S., & O'Day, J. (1991). Systemic school reform. In S. H. Fuhrman & B. Malen (Eds.), *The politics of curriculum and testing* (pp. 233-267). London: Falmer.

Smylie, M. (1991). Organizational cultures of schools: Concept, content, and change. In S. C. Conley & B. S. Cooper (Eds.), *The school as a work environment: Implications for reform* (pp. 20-41). Needham Heights, MA: Allyn & Bacon.

Smylie, M. (1994). Redesigning teachers' work: Connections to the classroom. In L. Darling-Hammond (Ed.), *Review of research in education* (Vol. 20, pp. 129-177). Washington, DC: American Educational Research Association.

Smylie, M., & Smart, J. C. (1990). Teacher support for career enhancement initiatives: Program characteristics and effects on work. *Educational Evaluation and Policy Analysis, 12*(2), 139-155.

Southern Regional Education Board. (1994). *Reflecting on 10 years of incentive programs: The 1993 SREB Career Ladder Clearinghouse Survey.* Atlanta, GA: Author.

Spring, J. (1994). *The American school 1642-1993* (3rd ed.). White Plains, NY: Longman.

Spuck, D. W. (1974). Reward structures in the public high school. *Educational Administration Quarterly, 10,* 22-42.

Steffy, B. E. (1993). *The Kentucky education reform: Lessons for America.* Lancaster, PA: Technomic.

Talbert, J., & McLaughlin, M. W. (1994). Teacher professionalism in local school contexts. *American Journal of Education, 102*(2), 123-153.

Timar, T. (1992). Incentive pay for teachers and school reform. In L. Frase (Ed.), *Teacher compensation and motivation* (pp. 27-60). Lancaster, PA: Technomic.

Tyack, D. B. (1974). *The one best system: A history of American urban education.* Cambridge, MA: Harvard University Press.

Tyack, D. B., & Strober, M. H. (1981). Jobs and gender: A history of the structuring of educational employment by sex. In P. A. Schmuck, W. W. Charters, Jr., & R. O. Carlson (Eds.), *Educational policy and management: Sex differentials* (pp. 131-152). San Diego, CA: Academic Press.

Vroom, V. H. (1964). *Work and motivation.* New York: John Wiley.

Wanous, J. P., Keon, T. L., & Latack, J. C. (1983). Expectancy theory and occupational/organizational choices: A review and test. *Organizational Behavior and Human Performance, 32,* 66-86.

Welbourne, T. M., & Mejia, L. R. G. (1995). Gainsharing: A critical review and a future research agenda. *Journal of Management, 21,* 559-609.

Wise, A., & Leibbrand, J. (1993). Accreditation and the creation of a profession of teaching. *Phi Delta Kappan, 75,* 133-136.

Wise, A. E. (1995). The New Professional Teacher Project. *Quality Teaching: The Newsletter of the National Council for Accreditation of Teacher Education, 4*(2), 2-3.

Wohlstetter, P., & Odden, A. (1992). Rethinking school-based management policy and research. *Educational Administration Quarterly, 28,* 529-549.

Wohlstetter, P., Smyer, R., & Mohrman, S. A. (1994). New boundaries for school-based management: The high involvement model. *Educational Evaluation and Policy Analysis, 16,* 268-286.

Wright, P. M. (1989). Testing the mediating role of goals in the incentive-performance relationship. *Journal of Applied Psychology, 74,* 699-705.

Zingheim, P., & Schuster, J. R. (Eds.). (1995a). The new pay tools and strategies: How to create and reward high performance in your organization [Special issue]. *Compensation and Benefits Review, 27*(4).

Zingheim, P., & Schuster, J. R. (1995b). How are the new pay tools being deployed? *Compensation and Benefits Review, 27*(4), 10-13.

Zingheim, P., & Schuster, J. R. (1995c). Moving one notch north: Executing the transition to new pay. *Compensation and Benefits Review, 27*(4), 33-39.

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Paying Teachers for What They Know and Do

New and Smarter Compensation Strategies to Improve Schools

Allan Odden and Carolyn Kelley
University of Wisconsin-Madison

Among the cries for school reform and recommendations to strengthen teaching as a profession are various proposals designed to change how teachers are paid. *Paying Teachers for What They Know and Do* looks at state and local efforts to change teacher compensation and proposes strategies that are appropriate for education. Changing the way teachers are paid is often controversial and never easy, but strategies can be designed that will contribute to the national goal of teaching all students to high standards and contribute to better pay for teachers.

This book describes these approaches to teacher pay and their relationship to the overall change in the education system. The authors give examples of changes in compensation that are being implemented in schools across the country and suggest ways that states and districts can achieve better progress on this important agenda. New methods of compensation used in other organizations — including competency-based pay, contingency-based pay, and group-based performance awards — have potential applications in education as well, and are already being tried in many states and districts.

Paying Teachers for What They Know and Do answers the following questions and more:

- Are teachers paid for what they do?
- Should pay increases be based on seniority, skill level, or student achievement?
- Does increased compensation motivate teachers and improve schools?

The public is concerned about school safety, academic standards, student achievement, and good teaching. Communities want schools to improve — to produce higher levels of student learning. The authors' proposals reflect a conviction that as schools improve, public support will increase, and schools will receive more funding to better compensate teachers.

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